

MONTHLY REPORT

OF

THE AGRICULTURAL DEPARTMENT

FOR

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# MONTHLY REPORT.

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DEPARTMENT OF AGRICULTURE,

*Washington, September, 1865.*

This number of the Monthly Report relates chiefly to farm stock. The first article is an excellent communication from Dr. S. T. CZAPKAY, a German citizen of the United States, and authorized by the late President to act as commissioner of the United States at the fair at Stettin. The excellence of the report made by him will be conceded by every reader of it, and the patriotic worth of the Doctor will be as readily appreciated when it is known that his services as such commissioner are given gratuitously.

His introductory remarks are interesting. The rigid application of the actual use of horses to the particular classes as exhibited will be noticed with some surprise, for it follows a like division in human labor, which exists in European nations, but not here. American energy leads the same individual to engage in different occupations at different periods of his life, but European labor follows its ancestral calling. We have both men and horses for "general purposes," but from this report of the fair at Stettin it seems the Germans have no such class of either men or horses.

The great consumption in Germany of milk and its products has induced great attention to the milking properties, and that part of the report on cattle will command the reflection of our dairymen. At our most important State fairs scarcely any milch cows are exhibited; and a few imported Alderneys and Ayrshires constitute the usual show of the milking breeds. But in the fair at Stettin, of 383 entries of cattle, 281 were under the class of milk breeds. The great predominance of the Holland as a milk breed will lead to its importation here as soon as it can be safely done. Our dairy interest, now rapidly growing into greater magnitude, and which may be strongly influenced by the cattle plague in Great Britain, should meet a greater encouragement by increased premiums at our State and county fairs. The showy qualities of the Durham have made them popular on exhibition, and thus attracted an attention to beef properties which should have been divided with milking properties also. Circumstances are now in action here which will force a juster estimate of the milking breeds.

From the report it will be seen that the leading object of the fair at Stettin was the encouragement of the wool-growing interests. The number of sheep was large, being 2,044. Of these, 1,129 (more than one-half) were entered under the class of "combing wools." Some months ago a statement was published in the Monthly Report that the Germans were changing their finer wools to a coarser grade, and that combing wools there, as here, were more sought after. The statement is here verified by the large entries of combing-wool

sheep. But they had at Stettin a wool which we have not. "The term combing wool," says the report, "has a different signification, or rather has reference to a different quality of wool from what it has in the United States; by combing wool we understand a wool which is very long and rather coarse, as the Cotswold or Leicester; but in Germany the long Merinoes are called combing wools, and are employed in the manufacture of ladies' dress goods, whilst the 'cloth' wool is a finer and shorter wool, and is employed in the manufacture of fine broadcloths, cassimeres, and for gentlemen's dress goods."

In this country a change like this is being made. Our longer Merinoes are separated, the longer parts of the fleece are taken for delaine purposes, or, in other words, for ladies' dress goods. This want of long Merinoes will result here, as it has in Germany, in the breeding and exhibition of combing-wool Merinoes. As the country returns to those manufactures which the wants of peace most require, it will be found that these long Merinoes will become most in demand. Our recently introduced manufacture of braids will soon be made of such wool, instead of the coarse combing wools. This Department has always recommended such modification of the long, coarse, combing wools.

The second article is on the cattle plague, the recent introduction of which into England has created so much excitement there. The latest accounts from that country indicate its rapid extension and extreme fatality. Severe measures are introduced to prevent its extension, and as it has not yet reached Ireland the government has prohibited the importation of cattle into it. The experience of Great Britain goes to show the necessity of those stringent measures which this article points out as adhered to in the German states. Even the flies, it is now said, communicate the contagion from one place to another in England, showing that the Germans from experience learned the necessity of burying the cattle that had been killed or had died in consequence of this plague.

A disease so fatal, and which would be, in its results, so disastrous if introduced into this country, should be kept out of it by every agency in the power of individuals or of the government. The suggestions in the article should not be overlooked, and I am rejoiced to find so influential a body as the New England Agricultural Society calling on the government to prohibit the importation of cattle. The Emperor of France has prohibited their importation from certain countries.

The progress of the European and English harvests is of great interest to our farmers, and they will find ample accounts of it in this report. The advancing prices in both these countries are significant; and although it is yet too early to determine the extent of the deficit in the English harvest, yet enough is known to see that it will be greater than an ordinary one. It is stated that the deficit in the wheat crop will be about four bushels per acre below an average yield. There are about 4,150,000 acres in wheat cultivation in the United Kingdom, making a deficit of 16,600,000 bushels. From the article in the present report, headed "Consumption and Production of Wheat, &c., in Great Britain and Ireland," it will be seen that the average amount consumed in these

countries is about 56,000,000 of bushels more than produced. The deficit of this year will then make it about one-third greater, or 72,600,000 bushels. It may, however, be much greater.

The immense corn crop of this country, now safely grown, will enable us to ship largely of wheat to foreign countries, although the wheat crop has been injured fully as much as reported in the last Monthly, and the quality of the new crop is not good in many States. The amount of old wheat will not be as great as anticipated. The buckwheat and potato crops may be very large, but the danger of the rot is too imminent to base any calculations upon the latter crop.

The usual amount of statistical information will be found in the present report; and it is believed that the report itself will not be less acceptable to farmers and business men than former ones.

ISAAC NEWTON, *Commissioner.*



## THE INTERNATIONAL FAIR AT STETTIN.

BERLIN, PRUSSIA, *May, 1865.*

Stettin is the capital of the province of Pomerania, and situated on the river Oder, eighteen miles (German) north of Berlin, or about eighty-three English miles. So long as Pomerania remained a dukedom, Stettin was the residence of the reigning duke and the royal family as well as of the nobility of the province. The last reigning grand-duke was Bogislaw XIV, who was permitted to rule until his death in 1673; but in the treaty of peace in Westphalia in 1648 Pomerania was ceded to Sweden, and in the treaty at Stockholm in 1720 it was attached to Prussia. Portions of the city evidently are some 700 or 800 years old; for the Saint Peter and Paul church was founded in 1124 by order of Bishop Otto, of Bamberg, in 1124. It was somewhat damaged by the siege of 1677, more of it was destroyed by the war of 1806, but in 1816-'17 it was fully restored in all its former details. The recent and present Kings of Prussia, Frederick William IV and William I, have bestowed upon it several very beautiful images and paintings on glass. The city does not occupy as much territory as Columbus, and is enclosed by a stout brick wall, the several gates of which, especially the one opening on the Berlin road, are splendid monuments of ornamental masonry. It contains about 70,000 inhabitants, 1,000 Catholics, and a military garrison of 5,944 soldiers. It is one of the most important cities of the Zollverein. The Oder river, which is very narrow here, about like the Cuyahoga at Cleveland, or Schuylkill at Philadelphia, is very deep, and admits vessels drawing 16 and 17 feet of water. There is an immense amount of shipping done here, consisting chiefly of grain, wood, spirits, and zinc as articles of export, and dye-woods, fish-oil, and colonial ware as imports.

Two hundred sea-going vessels are owned in this place, and thousands from otherlands are here in port every year. The city itself is very irregularly laid out. In the old part of the city there are scarcely any parallel streets, but they are located at every other possible angle to each other except at right angles. The streets are narrow, well bouldered, and kept clean. The houses are the usual five and six story houses of northern Germany, in which several families reside in each story. The exterior of the buildings are stuccoed with a cement which here is very durable. I was assured that one stuccoing properly put on at first would last fully fifty years. This stuccoing gives the houses the appearance of having been built of a light-colored or grayish stone, and really presents a much better appearance than our glaring red brick walls in the States. The country around about is a low plain, especially on the right bank of the Oder, which in time of freshets is overflowed for miles, and can be used for no other purpose (agriculturally) than as water meadows, or as meadows in which wild or sour grasses are grown. The shore and country on the left bank are much more elevated, and a portion of the *new* town or portion of the city is fully 150 feet above the level of the river, and a little north of the Berlin gate is a hill 250 feet high. From this hill one of the grandest panoramic views may be obtained of many miles of the surrounding country.

There were really two exhibitions here, the one an "industrial exhibition," under the auspices of the Polytechnic Society of Stettin and patronage of the crown-prince, and the other an "agricultural exhibition," consisting of an ex-

hibition of live stock, agricultural machinery, artificial manures, and everything else connected with agriculture, horticulture, &c. Party lines were tolerably broadly drawn between the polytechnists and agriculturists. Before the reader can fully appreciate the party spirit, it will be well to explain the relative position occupied by the polytechnist as well as that of the agriculturist.

In the first place, the agriculturist (*landwirth* or *gutsbesitzer*) is the owner of a large estate, the average of which estates in the provinces of Mecklenburg, Mark Brandenburg, Pomerania, Prussia, Poses, and Silesia average about 2,000 *morgens*, or 1,600 acres. This *landwirth* is in the line of nobility; if not *already* a nobleman, he may purchase a patent of nobility. The polytechnist cannot make any such purchase. The *landwirth* is ex-officio a member of the village council, and may be elected to the national house of representatives. The polytechnist can hold no office whatever; the polytechnist cannot by law *change* his occupation. The *landwirth* may commence distilling, or any other kind of polytechnic establishment he sees proper on his estate by employing competent practical men to conduct the business for him. In a word, the agriculturist or *landwirth* or *gutsbesitzer* (for they are all convertible synonymous terms) is a privileged man, whilst the polytechnist nowhere (in this country) can aspire to be more than a "*greasy mechanic*," as the confederates said of the Yankees. Hence party spirit runs very high, and hence the contest which should have the *best* exhibition. The polytechnists call themselves "democrats," and denounce the agriculturists as "aristocrats." There is no equivalent for our term "farmer." Those who do the toiling and drudgery on the farm are called "*day laborers*," even though they have been hired for a term of years; others are shepherds, cowherds, &c., &c. The agriculturist of the modern school is a highly educated gentleman, courteous to all, polite in his manners, very companionable indeed; many of them graduates of agricultural colleges. All of them that I met were deeply interested in agricultural education, experimental farms, &c.; in fact, any of these graduates, I think, are eminently capable of taking hold of an agricultural college and running it with proper assistance. I know for myself that I would not hesitate a moment to vote for any one of them to be president of our Ohio Agricultural College. There are those who own 2, 3, 4, 5, 6, 7, and 8 acres, but they take no part in public life; are kept close at work as a matter of necessity to make a living on the small tract.

The crown-prince (Victoria's son-in-law) is regarded as being liberal in his views, favorably disposed towards America and Americans; was solicited by the polytechnists to extend his patronage to their exhibition, which opened on the 12th of May, and in accordance with their request he was present and "opened" the exhibition. This fact gave this exhibition character and importance in the eyes of the "masses," and the halls were daily densely crowded with admiring and astonished visitors.

The northern provinces of the kingdom of Prussia, such as Mecklenburg, Pomerania, Mark Brandenburg, and Lower Silesia, have long since been famous as wool-growing provinces, as well as for the healthfulness, purity of blood, and the reliability of their *breeding* sheep. The international fair at Hamburg in 1863 gave a new impetus to sheep-breeding throughout these provinces, and in the autumn, or rather at the autumn meeting of the northern Prussian agricultural societies in 1864, it was determined to have an exhibition of sheep at Stettin in May, 1865. The object of the exhibition primarily was to bring not only the sheep-breeders of these provinces together, but to have the *sheep* from the various "*stock*" establishments side by side to compare, so as to be enabled to compare the *living animals* as well as their products. But, fearing that an exhibition of sheep alone, or independent and isolated from any other kind of agricultural interest, would not prove to be very attractive to the public gener-

ally, nor would be very successful financially, it was therefore resolved to unite with it a "live stock" exhibition in the general sense of the term, together with an exhibition of agricultural implements. Yet, as the primary or original object of the exhibition was for the benefit of the sheep interest, the time fixed for holding it was at a period which, in ordinary years, would be before "shearing time." But the year 1865 has thus far been an extraordinary year so far as meteorology is concerned, for in less than a week the transition was made, so far as the *temperature* was concerned, from winter almost to midsummer; and it would have been sufficiently warm to have sheared every sheep by the first of May; many of them were really suffering from the heat under their dense and valuable winter suit. The societies further argued that, as Stettin was practically a seaport town, and vessels arriving and departing daily for Holland, France, England, Sweden, Russia, &c., if the exhibition were dubbed international, and and these countries invited to exhibit and compete for premiums, full and absolute success would be guaranteed beyond a peradventure.

This, then, is in brief the history of the location and organization of the "*first Agricultural Fair*," or exhibition, in or near the capital (Stettin) of Pomerania—a city which boasts a population of upwards of seventy thousand inhabitants, situated in the midst of an agricultural region, and whose history dates back to the 12th century. The agricultural exhibition commenced on the 16th of May, 1865. On the morning of that day the president of the Provincial Agricultural Society, (Mr. Von Hagen,) accompanied by a number of civil and military officials, proceeded to the extreme end of the large hall for exhibitors, and in a short and very happy speech declared the exhibition open. The attendance was very large throughout, but there were very few Americans here; the majority of Americans present were the agents of the several "sewing machines." Our consul, C. T. Sundell, esq., has been indefatigable in his exertions to induce Americans to exhibit, and is sparing no pains to render the stay of Americans pleasant, agreeable, and comfortable. Certainly no one could have done more than he did and is doing daily to engender the kindest feeling and promote commercial intercourse between the Prussian and United States governments.

The number of articles on exhibition is very fair, and the quality of most very excellent.

#### HORSES.

In the department of horses there were three hundred and forty-eight entries. These consist of—

Class of thoroughbred stallions and mares .....	16 entries.
Class of heavy farm horses and mares .....	38 entries.
Class of light farm horses and mares .....	26 entries.
Class of saddle, hunter, and cavalry horses and mares...	64 entries.
Class of heavy pack horses and mares .....	5 entries.
Class of heavy draught horses and mares .....	87 entries.
Class of light draught horses and mares .....	29 entries.
Class of ponies .....	10 entries.
Class of brood mares for farm purposes .....	24 entries.

Professional horse-dealers exhibited the remainder of the horses entered. These horses were of various descriptions. It would occupy too much space to make anything like a descriptive list of the animals on exhibition; but, taken as a whole, the horses were superior to those usually exhibited at our State fairs in the United States. Of course, we have some that are fully as good in their class as any exhibited here, but our people do not exhibit as many and uniformly good ones as here. The thorough-bred Arabian stallion



Selim Ben Ayssa was on exhibition here. He is now thirteen years old, five feet two inches (Prussian) high. He was bred by the Sheik Kawan, near Bagdad, and is of the Saalavi-Djedrani race, and of the Anazee Ruolla stock. He was taken to the Crimea as a four-year old, and after making a "campaign" there was taken to England. The remainder of the thorough-breds on exhibition were either owned in England or of English blood.

The heavy farm horses are the "Percherons," a French breed—I am assured they are not the "Normans," and yet they resemble them in height, form, and general contour, and sometimes in color; the Percherons here are usually of a dark, mottled color, but there is no uniformity in color after all, some are bright bays, others silver grays, some roan, some dun, some dark chestnut brown, &c. The class of light farm horses may, without impropriety, be set down as a class corresponding to the "Cleveland bays." According to the catalogue most of them are half-blooded, or even less. In fact, we found that all classes of horses, even to the heavy draught horses, were regarded as being better if they had a sprinkling of thorough-bred blood in their veins.

The saddle, hunter, and cavalry horses are heavier than the thorough-breds, move with a great deal of grace and elegance; but all of these are partly thorough-breds. I learn that the Prussian government intends to establish a race of cavalry horses—that is, to establish an artificial breed, which shall be best adapted to that exclusive purpose. The manner of exhibiting the horses was rather intended to embarrass than facilitate the work of the committee. The horse department was an enclosed street, the stalls being erected on both sides of the street, and when they were exhibited they were led out into the centre of the street by a groom, and then led up and down the avenue as fast as the groom could run. All horses were exhibited in the same manner, whether thorough-bred or heavy draught. One could not resist a smile to see the heavy Percherons, weighing 1,500 to 1,600 pounds, undertake to trot gracefully, with their heavy necks, broad buttocks, and thick legs.

Horse-racing is a very popular branch of sporting among the better classes of Germans; consequently great attention is paid not only to blood, but to thorough training. All the horses exhibited in the class of thorough-breds, saddle, hunter, cavalry, and pleasure, manifested unmistakable evidence of careful breeding, excellent grooming; and capital training. Unlike the exhibition of horses at State and national fairs, the exhibition here in Steftin was more fully represented by horses employed in agricultural purposes than for pleasure. The classification here is that adapted to the country, and therefore differs from that of ours; for instance, in the United States we always have a class of "roadsters" and a class of "general purpose," or horses of all work. The roadsters would be out of place here, because there are no "buggies," and I very much doubt if our buggies would be long-lived on these Prussian "chaussees," or Macadamized roads. Then, as every one here has a specific occupation, (in consequence of a system of guilds,) a horse of "all work" would be entirely out of place, and every horse owner purchases or breeds for a specific purpose. The "paek" horses were all "Suffolks," or "Suffolk punches." Three of them were exhibited by Mr. Thomas Crisp, of Butler Abby, Wickham Market, England, one by Freiherr von Seekendorff, and the other was from the royal horse-breeding establishment of Posen.

The class of heavy draught horses, as will very naturally be inferred, consisted mainly of Percherons, English draught, Ardennes, and their crosses, with Suffolks and other heavy breeds of the country. Many of these animals were of mammoth proportions. There was a three-year old from East Friesland, a dark brown stallion, well proportioned, 5 feet 10 inches high—or, in sporting phraseology,  $17\frac{1}{2}$  hands high—with such legs and neck as we remember never to have seen on a horse before. The class of lighter draught consisted, in the main, of horses of the heavy draught crossed with thorough-breds.

As usual at all the exhibitions of this kind, the "ponies" attracted a great deal of attention, but the sight of the ponies, when exercising, was almost exclusively monopolized by the gentler sex. They forced their way through the dense crowd to the very imminent and sometimes positive damage of crinoline, and compelled the "lords of creation" to occupy a near position. There were ten ponies, and they were of black, brown, bay, mouse, and dun colors, and were matches throughout.

The brood mares for farm purposes were of various strains, but the Percheron and Normans predominated. The rules and regulations for this class required that every mare exhibited be either in foal or have a colt by her side; if in foal, and a premium be awarded, then the premium will not be paid until the foal is produced; and if the foal is dead no premium will be paid.

Whether the principle, if put in practice in the United States, of breeding horses for as many and specific purposes as in Prussia, would be economical, time alone can determine. As above alluded to, the guild system permits a person to engage in one pursuit only, and when once licensed and engaged in it he cannot change. Within the past few years this system has been somewhat modified, and a capitalist may now engage in any business he sees proper; may establish manufactories and carry on business in his own name, but he cannot direct the business himself if he has not been "brought up" to it; he is compelled by law to engage competent superintendents or foremen who have been brought up to the business; hence every industrial pursuit is confined to very narrow channels. Very few improvements, and very seldom are new discoveries or inventions made in proportion to the population and the number engaged in industrial pursuits. This system manifests itself even in horse-breeding; hence there are no horses here, as with us, that will work in a plough, in a carriage, buggy, and under the saddle. It is very doubtful if even we have horses that can be applied to all these purposes and acquit themselves in every specific performance as well as those reared for each of these specialties, and each specialty limited to the individual, notwithstanding we have horses that, as individuals, perform equally well in all the points enumerated.

#### CATTLE.

The display of cattle was excellent, and to us (Americans) one of great interest. There were three hundred and eighty-three head of cattle on exhibition, embracing many, if not a majority, of the most popular European breeds. These were divided as follows:

Milk breeds, (heavy).....	232
Milk breeds, (light).....	49
Beef breeds, (heavy).....	35
Beef breeds, (light).....	6
Work oxen, (yokes).....	13
Fat cattle, (heavy).....	28
Fat cattle, (light).....	1
Miscellaneous, for exhibitions only.....	19

By comparing the number of entries of horses and cattle it will be seen that they are nearly equal. In the United States the horses, as a general thing, number about three times as many as the cattle. A rational inference from this comparison of entries is, that we in the United States pay a great deal more attention to horses than we do to cattle, as compared with Prussia—or, what is the same thing, in other words, Prussia pays more attention to cattle than to horses, as compared with us; and if the manifestation of interest on the part of the visitors at the exhibition is any exponent of the real interest

manifested by the country, then most assuredly was the interest in favor of cattle, rather than of horses, decidedly evident. It is a maxim with the Prussian farmer that an abundance of barn-yard manure is essential to successful agriculture, and the exhibition demonstrates that he practices in accordance with the proverb. Milk, butter, and cheese are in much greater demand here than beef; all well-read persons of the United States are aware that the Germans, as a people, consume comparatively very little animal food; in private families, with rare exceptions indeed, meat is on the table once a day only at most; but as a general thing not more than once or twice a week. There were only forty-one brood beef cattle, while there were two hundred and eighty-one brood milk animals. We took considerable pains to make a complete table of the number of each race of cattle on exhibition under the several heads under which they were classified and entered:

	Milk.		Beef.		Work oxen.	Fat cattle.
	Heavy.	Light.	Heavy.	Light.		
Holland.....	125	4	.....	.....	2	.....
East Friesian.....	33	6	.....	.....	.....	.....
Short-horn.....	4	.....	28	1	.....	2
Montafoner, (Schwyzer).....	6	.....	.....	.....	.....	.....
Simmerthaler.....	5	.....	.....	.....	.....	.....
Tarlabor.....	1	.....	.....	.....	.....	.....
Breitenburger.....	9	1	.....	.....	.....	.....
Wilster Marsh.....	9	.....	.....	.....	.....	.....
Friesian Marsh.....	7	.....	.....	.....	.....	.....
Friesian Oldenburg.....	.....	2	.....	.....	.....	.....
Tarlabor-Dessau.....	1	.....	.....	.....	.....	.....
Schwatzower.....	1	.....	.....	.....	.....	.....
Tonder.....	1	4	.....	.....	.....	.....
Werder.....	1	.....	.....	.....	.....	.....
Short-horn Breitenburger.....	1	.....	.....	.....	.....	.....
Norfolk, (Polled).....	2	.....	.....	.....	.....	.....
Oldenburger.....	4	1	.....	.....	.....	1
Ayrshire.....	.....	6	.....	.....	.....	.....
Pomeranian.....	.....	2	.....	.....	4	.....
Angle.....	.....	6	.....	.....	.....	.....
Old Boyener.....	.....	2	.....	.....	.....	.....
Allgauer.....	.....	6	.....	.....	.....	.....
Jersey.....	.....	1	.....	.....	.....	.....
Angus.....	.....	4	.....	.....	.....	.....
Short-horn, Friesland.....	.....	.....	2	.....	.....	.....
Short-horn, Ayrshire.....	.....	.....	2	.....	.....	.....
Suffolk.....	.....	.....	.....	2	.....	.....
Devon.....	.....	.....	.....	2	.....	.....
Bohemian.....	.....	.....	.....	.....	16	4
Bavarian.....	.....	.....	.....	.....	4	1
Voigtland.....	.....	.....	.....	.....	.....	6
Oldenburg-Breitenburg.....	.....	.....	.....	.....	.....	1
East Friesland Marsh.....	.....	.....	.....	.....	.....	1
	210	45	32	5	26	16

To describe each one of these several races on exhibition would simply be to write the history of horned cattle in Europe, which, to do the subject and the animals justice, would require a large volume for text and an engraving for a type of each breed. We are glad to learn (by way of parenthesis) that the services of the most competent artist in all Prussia have been secured to produce a volume or rather an album of photographs of all these breeds on exhibition.



In several discussions which have taken place in our agricultural journals at various periods, an opinion has been advanced that the Holland is the parent breed of the short-horn. Not wishing to be understood as placing ourselves as umpires in this matter, we yet cannot resist saying that, after studying the 131 head of Holland cattle on exhibition, and having during the past eight or ten years seen many short-horns at State fairs and in private herds, we have been unable to remember a single "*point*" laid down as short-horn perfection, in Morton's Cyclopædia of Agriculture, which the Hollander does not fill as well as the short-horn. In fact, some of the Hollanders fill the bill better than the short-horn itself, with one exception, color. We have never seen a short-horn of the same color of the majority of Hollanders; large spots of black and white is almost uniformly the color of the latter, whilst roan, white, or red, is the prevailing color of the former. There were some very dark roan Holland bulls, some of a mouse color, some of bright dun, but the great majority were black and white in large spots.

Many of the breeders here claim that the short-horn is simply an improved Hollander; others, and among them Herr Von Elsner, of Gronow Silesia, a very intelligent gentleman and breeder of the highest reputation, claim that there is no consanguineous relation between them, but that both of them are lowland races, and therefore have many "*points*" in common. It must be remembered that the "*Dutch*" cattle, although abounding in Holland, are not the *true* Holland breed, any more than the cattle of Durham county, England, are thorough-bred short-horns. The Holland bull is as large, as broad and level on the back, has the same shaped head, neck, horns, nostrils, and muzzle, as the short-horn, but he lacks in development of brisket; the head, neck, and horns of the Holland cow are finer than that of the short-horn cow, the carcass equally square, broad, and deep, but excels in the development or secretion of milk. The breeders here admit cheerfully the excellence of the short-horn as a *beef* race, but claim that the Hollanders, Breitenburgers, Oldenburgers, East Friesian, and Swiss, far excel it as *milk* races. Mr. Elsner has imported and bred short-horns for some years past, and informed us that he found them somewhat difficult to keep, and that they were very liable to be barren; that they were by no means as certain breeders as any of the Continental races.

The East Friesian (Ost Friesland) is a race strongly resembling the Holland in the general contour of carcass, except that the back is not so straight; the color is chiefly white and black spotted; the horns longer than the Holland, and the entire animal somewhat smaller. They are easily kept on scant pasturage, and yield large quantities of milk. For beef or work they are not as desirable as "*Ohio Pennyroyals*."

From the great popularity of the "*Oldenburgers*" we were surprised to find so few on exhibition. It is a very beautiful race of cattle—elegant in form, not so heavy as the Hollanders but longer *coupled*, often of a beautifully mottled color, medium but very gracefully curved horns, hides as soft, mellow, and silky as any *short-horn*, and extraordinary milkers.

The Friesian Marsh and Wilster Marsh more nearly resemble the *Devons* than any other race with which we are familiar—both are piebald races, and reputed capital milkers. There were, as indicated in the table, several races represented by a single individual; these, it is fair to presume, were brought as curiosities, or rather as the remnants of former popular breeds, but now superseded by others; such are the Sarlabot, Sarlabot-Dessau, Schwarzower, Tonder, Werder, &c. The Sarlabot was a 2½-year old bull, black and white spotted, originated in Normandy, Canton de Dazulé (Calvados,) and from the Sarlabot estate, whence the name of the race. It is a polled breed. It is said that this race is now very favorably received in some parts of England, because they take on flesh very kindly, produce very tender and juicy beef, and are excellent milkers.



The Swiss race would certainly never become favorites with our short-horn breeders. The bulls are long, lank, "sway" backs, and have a large dew-lap commencing under the lower lip, running along the throat and terminating nearly midway on the belly; the cows generally are "sway" backed, of various colors, and their reputation for milking qualities too well known to require repetition here. In the table will be found such names as Friesian-Oldenburger, Sarlabot-Dessau, Shorthorn-Breitenburger, &c.; these are crosses, the first name of the component breed *always* indicating the race of the sire, and the last name that of the race of the dam.

Of course not much can with any kind of propriety be said of these half breeds as brood animals, because the type is not fixed and the qualities are undeveloped; but our German friends all admit that the cross produced between any of the local races and the short-horns, by breeding to a short-horn bull produces a more desirable animal in many respects than either of the parents.

Among those exhibited under the class of miscellaneous were a two-year old Hungarian bull and cow; two two-year South American cattle, and a young Thibetan. All of these were from the Agricultural Institute at Berlin.

The system of soiling cattle is very extensively practiced in northern Germany. The country being low, level, or in fact nothing but a sandy plain, with here and there a clay deposit, the farmers are compelled to adopt every economical practice, and hence as many cattle are kept as possible in order to obtain a good supply of manure; and the cattle are green-soiled in order to secure for proper application all the manure made, both liquid and solid. The green-soiling system undoubtedly is an economical one so far as the pasturage is concerned, but we very much doubt whether animals kept in confinement for generations are or *can* be as healthy as those that have the free range of the open fields.

## SHEEP.

As before stated, the primary object of the exhibition was for the benefit of wool-growers, and it was reasonable to presume that here, at the headquarters of European wool-growing, a large exhibition of sheep would be found, and in this respect we were not disappointed. The entries of sheep of all classes numbered 2,044, and were as follows:

### A.

#### Entries.

a. Bucks 2 years old and over, producing CLOTH wool of <i>at least</i> prime fineness, and that have the highest breeding qualities .....	101
b. Yearling bucks, same as above .....	96
c. Ewes 2 years old and over, same as above, in lots of 3 in each lot ....	142
d. Yearling ewes, same as above .....	160
e. Bucks 2 years old and over, producing wool <i>less</i> than prime fineness, but having the highest breeding qualities .....	22
f. Yearling bucks, same as above .....	24
g. Ewes 2 years old and over, in lots of 3 in each lot, same as above ...	33
h. Yearling ewes, same as above .....	45

### 2. SHEEP PRODUCING COMBING WOOL.

a. Bucks 2 years old and over, producing combing wool of at least prime fineness and that possess the highest breeding qualities .....	54
b. Yearling bucks, same as above .....	49
c. Ewes 2 years old, in lots of 3 in each lot .....	130
d. Yearling ewes, same as above .....	90

e. Bucks 2 years old and over, producing wool of less than prime fineness, but that possess the highest breeding qualities.....	54
f. Yearling bucks, same as above.....	167
g. Ewes 2 years old and over, in lots of 3 in each lot.....	342
h. Yearling ewes, same as above.....	243

## 3. SPINNING WOOL.

a. Bucks .....	13
b. Ewes .....	10

## B. MUTTON SHEEP, LARGE RACE, (LEICESTER AND LINCOLN TYPE.)

a. Bucks .....	6
b. Ewes .....	6

## 2. SMALL RACE, (SOUTH-DOWN TYPE.)

a. Bucks .....	58
b. Ewes .....	34

## C. FAT SHEEP, (REGARDLESS OF RACE.)

a. Animals under 5 months old.....	None.
b. Animals from 5 to 18 months old.....	33
c. Animals over 18 months old.....	64
d. Animals heaviest, without regard to age.....	None.
Miscellaneous, without regard to age, sex, and quality.....	54

The term "combing wool" has a different signification, or rather has reference to a different quality of wool from what it has in the United States. By combing wool *we* understand a wool which is very long and rather coarse, as the Cotswold or Leicester; but in Germany the long Merinoes are called combing wools, and are employed in the manufacture of ladies' dress goods, whilst the "cloth" wool is a finer and shorter wool, and is employed in the manufacture of fine broadcloths, cassimeres, &c., for gentlemen's dress goods.

It is conceded here that the French Merino (Rambouillet or Mauchamp) does not produce as fine and compact a wool as the Negretti, and an analysis of the entries demonstrates that, whilst more than one-half of all the fine-woolled sheep on exhibition were Rambouilllets, yet in the class of "prime" fineness, a class embracing 499 entries, 13 Rambouilllets *only* competed. The following is an analysis of the fine-woolled sheep on exhibition :

1. Cloth wool, prime fineness, Negrettis .....	486
Rambouilllets .....	13
	<hr/>
	499
	<hr/>
Less than prime fineness, Negrettis.....	110
Rambouilllets .....	14
	<hr/>
	124
	<hr/>
2. Combing wool, prime fineness, Negrettis.....	92
Rambouilllets .....	231
	<hr/>
	323
	<hr/>

Less than prime fineness, Negrettis .....	119
Rambouilletes .....	688
	<hr/>
	807
	<hr/>

Showing that out of 1,753 fine-woolled sheep 946 were Rambouilletes; and the analysis furthermore demonstrates that where the fine wools were divided into four classes, the great majority, amounting to almost 75 per cent. of the entire lot of Rambouilletes competed in the lowest or coarsest class. Exhibitors were at liberty to compete in whichever class they saw proper.

The Rambouilletes are highly esteemed here, and are pretty well introduced and distributed. Some of them were *splendid animals* indeed; as, for instance, Mr. Vuafart Oudin, of Caumont by Marle, department of Aisne, France, among others, exhibited three bucks, aged two and a half years, weighing unshorn, but wool of one year's growth, respectively, 110, 112, 120 kilogrammes, or, estimating the kilo. at two and a half pounds English, 275, 280, and 300 pounds live weight. The sheep-breeders have been exceedingly careful to keep the blood pure, and there are many flocks which were founded in the latter part of the eighteenth and the commencement of the nineteenth century which have been kept entirely pure; this, however, is more frequently the case in Silesia than elsewhere. The Landgrave of Schwerin, a nobleman residing on his estate at Amalienhof, (and whose personal acquaintance we were fortunate enough to make,) exhibited four combing wool Merinoes two years old, which were originally from the stock flock at Kleisthöhe, and are the pure descendants of a stock established in 1826, from pure bred sheep which Napoleon I ordered from Spain. A yearling ewe, marked 49 of 1864, had the most compact *white* and regularly crimped fleece we ever saw, and we inquired of the landgrave why he did not compete in the class of cloth wool instead of the combing wools; he replied that the wool was a shade too long to compete successfully in that class; we hope he took a premium, for he really deserved one. The bucks were well built, had splendidly formed and compact heads, and were valued at \$500, (louis d'ors, 100.) We may be permitted to mention here (parenthetically) that one of the most distinguished sheep-breeders told us that if we wished to purchase sheep we should not pay over 200 thalers (\$150) for the best buck on the grounds; that there were none here or in Europe really worth more than that. He said of course some would ask 2,000 to 3,000 *thalers*, but they were purely fancy prices, and bucks equally as good in every respect could be purchased for 200 thalers. Another breeder remarked to us that the Negrettis were *so much improved* that the wool was entirely too fine, and that they were now doing all they could to introduce the Rambouilletes, not because they believed the Rambouilletes were better, not even as good as the Negrettis, but that the *cross* between the two would in the course of time produce the right kind of wool. Whatever may be the cause, the Rambouilletes are rapidly gaining favor in Germany.

There were very few Electorals on exhibition. The Electorals, as far as I can learn here, are about equivalent to our Saxons; they have a short but very fine fleece. Many of the Negrettis, so called, which were on exhibition, had more or less of the Electoral blood in them. No breeder here seems to know much about the Paulaos, or Infantados. A thorough-bred Negretti is a singular-looking animal; there is no portion of the body free from folds; wool down the forehead and over the face, wool down the legs to the hoof. Those on exhibition were fine and compactly built animals.

In the class of spinning wools the Lincolnshire, Oxford, and Southdowns were exhibited, as well as crosses between the Southdowns and Merinoes. The Leicester, Lincoln, and Cotswolds were exhibited in the class of mutton sheep



of the larger class. The Southdowns and Oxfordshiredowns, and some of the native races, were exhibited in the class of smaller mutton sheep.

There were several of the broad-tailed or fat-tailed sheep on exhibition. The tail is about six inches broad, and perhaps a foot long, and from two to three inches thick, and resembles a cushion placed against the hind quarters of the sheep rather than a *tail*; but the general form of the sheep is more like that of a deer—long and thin legs, no wool on them; a light, long body, a tolerably long neck, and, taken as a whole, one would scarcely at first sight recognize them as sheep.

S. T. CZAPKAY, M. D.,  
*United States Commissioner.*  
 JOHN H. KLIPPART, *Agent.*

P. S.—The remainder of this report will be prepared as soon as possible. The exhibition at Cologne, where I must be on the 28th instant, and the wool fair at Breslau on the 6th of June, which I wish to attend, and as these points are some 500 miles from Berlin, and all of 500 miles apart, leaves me very little time to write.

JOHN H. KLIPPART.

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## THE RINDERPEST, OR CATTLE PLAGUE.

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In the last Monthly Report we called the attention of American dairymen to the fact that this disease had shown itself in Great Britain, and that an increased demand for their butter and cheese would follow. This result is already seen.

The disease is rapidly spreading in Great Britain, and, by the latest accounts, it is without a remedy. Now it becomes our duty to speak of it more fully, for two reasons: because the American farmer should not be ignorant of such a disease even if it was certainly known that it would never reach these shores, and because it may reach them, and, hence, energetic and efficient measures should be adopted to prevent its introduction.

The word "rinderpest" means cattle plague. The disease thus named is one of the most infectious known, and is *epizootical*. This word signifies "among animals," as the word "epidemic" means "among people." It prevails *normally* in the steppes of Russia; that is, the causes that generate the disease are there always existing. These steppes are high prairies, and like our own in the west, which have within them the unknown causes of the trembles, or milk-sickness, they contain the unknown causes that create the disease now under consideration. So we find that scourge of the human family, now again approaching us, the cholera, to have its normal existence in a southern slope of the Himalaya mountains. There constant wet, acted upon by as constant heat, has produced a vegetation that completely conceals the ground from view, and in its decay there is evolved the cause of cholera. Under favorable conditions for its propagation, it passes from the country of its origin to desolate the earth by fulfilling its mission of death.



If any of our readers will look at the map of Russia, they will see that around Moscow several rivers take their rise, flowing in all directions. Here is a vast plain, and from its waters these rivers are formed. In many places they scarcely flow at all, but stagnate in a rich level soil that discolors the water with its own dark hues. Swamps pervade the country; few farms exist in comparison with the pasturage, and agriculture is in a low condition. Here is abundant stock, with no winter food provided for them, subject to calamities such as visited California, when unfavorable seasons cut short the accustomed pasture. Reduced by want during the winter, the cattle and other stock, even the human race itself are afflicted with disease when the heat of spring furnishes fresh grass, so unfitted to this starvation of winter.

Among these diseases is the rinderpest. If it is at all infectious by the atmosphere, it is but slightly so, even secondarily. But by *contact* its propagation is the most certain of all diseases. Hence its spread can be guarded against by isolation. Upon this fact the nations of Europe have acted against its spread with much efficiency.

To determine the best means of protection against the disease, we must understand its character, for measures of prevention or of cure must be in accordance with the nature of the disease. We shall then speak *first* of the character of the disease, and *second* of the means that have been adopted to eradicate it from European nations, and from these deduce what is demanded of us as a people or a government to guard against its introduction into the United States.

We have before us a most excellent report on this plague, from J. B. Simonds, Professor of Cattle Pathology in the Royal Veterinary College of England, written in 1857. In 1856 the disease, through the exportation of Russian cattle into Austria, Prussia, and other German nations, had been introduced into countries contiguous to Russia, and the nations of Europe then investigated its character. The Royal Agricultural Societies of England, Scotland, and Ireland, acted together and sent Mr. Simonds into Europe to make himself acquainted with the character of the disease and the means of its prevention and cure. Accompanied by a German veterinary professor, he went to Silesia in Austria, and examined animals affected by it, and on his return made the report from which we purpose making our extracts. Before doing so, however, we pause to make a single comment on the fact that these eminent societies, in selecting this equally eminent professor as their agent, pursued a different course from many here, who, when the pleuro-pneumonia had been introduced into this country by the importation of cattle, had the selection of persons to examine and report upon it. In the majority of cases those chosen were known as possessing no veterinary knowledge; in many instances they were not even farmers, but politicians merely.

The following extracts from the report of Professor Simonds better describe the character of the disease than any more recent statement of it, and in giving them we have occasionally added in parenthesis an explanation of the meaning of some technical words.

*Spontaneous origin.*—The steppes (prairies) of Russia are the home of the rinderpest, and here it may be said to hold almost undisputed sway, little being done by the imperial government to stay its ravages. Here also, as has been elsewhere stated, it is alone regarded as having a *spontaneous* origin, but with what amount of correctness we are unable to say. Doubtless every disease has had its place of origin, and in it there may exist persistent causes which keep alive, so to speak, the cause of sin. Such causes may possibly be found on these vast plains of Russia, and if so, here would be the natural habitation of the pest. Be this as it may, it is certain that in these countries which are contiguous to the steppes the malady has no such origin, and its appearance in them is invariably associated with the recent introduction of steppe cattle, and generally in the ordinary course of traffic.

*General symptoms of the pest.*—When the animal sickens, the affection will be recognized by almost continuous spasmodic twitchings of the voluntary muscles of the body, more particularly those of the neck and shoulders, and of the hind quarters. These twitchings are accompanied by tremors which are more or less generally diffused, and which interrupt the regularity of the spasms, and give to the animal an appearance of suffering from exposure to cold. The coat stares, and the patient stands with its back arched and its legs gathered together under the body, but does not seemingly suffer much acute pain. In the course of a few hours rumination is suspended, and the appetite fails, but water will generally be partaken of almost up to the end.

"The temperature of the body is variable, a slightly increased warmth of the skin existing at the beginning of the illness, which soon, however, gives way to chilliness of the surface, and this again to a death-like coldness of the ears, legs, and horns, as the malady advances to a fatal termination. The pulse is scarcely disturbed at first, unless the attack is a severe one, when it quickly rises to 70 or more, but wants tone in its action. In all ordinary cases it becomes gradually more frequent in number, but less in force, and in the latter stages can only be felt at the heart.

"The respiration is but very little altered at the commencement; it rarely becomes difficult, and was never painful in any of the cases we witnessed. It sometimes rises to 30 on the second day. The contractions of the abdominal muscles are often interrupted in their rhythmical action by the spasmodic twitchings which give a singular motion to the animal's flanks, and has led some observers to speak of a difficulty of breathing as being invariably present. A discharge comes on early from the nostrils, which has many of the characters of ordinary mucus, but, when carefully examined, will be found to contain flocculi of lymph, (flakes of a clear fluid among the thick and whitish mucus.) A slight cough is also present in some cases, but it cannot be heard except one is near to the patient, when it imparts a singular and almost indescribable sound to the ear.

"The expression of the countenance does not denote much acute suffering and the eyes are without any dull appearance except in the advanced stages of the malady, when the lids are found to be drooping as in sleep, and the ears also to be a little lopped. The vessels of the conjunctival membrane (the outer and mucous skin or membrane of the eye, and of the inner surface of the lids) are almost without turgescence, (superabundance of the mucus,) but a discharge in most cases comes from the eyes, which accumulates in a yellow jelly-like mass at the inner angle, and when examined it likewise is found to be composed principally of lymph.

"The bowels are but little disturbed at the very beginning of the disease, but the feculent matter, (the dung,) almost unaltered at first in consistency, is soon passed in increased quantities, and in the course of the second day diarrhœa sets in. This diarrhœa is presently followed by dysentery, which continues to the

end. (Diarrhœa is a general loose and profuse discharge from the bowels, and dysentery is an inflammation of the lower and straight portion of the larger intestine, accompanied by griping, and a constant desire to evacuation.) The evacuations are not particularly offensive, but they are remarkably fluid, of a dirty yellow color, and mixed with numerous small flocculi of lymph. Occasionally a little blood stains the evacuations, and tenesmus (the urgent desire to evacuate when it cannot be done) is also present in some cases. The abdomen becomes much pinched in, and the animal's strength quickly fails him. He now keeps mostly recumbent, and rises very reluctantly. If made to move he staggers, and often falls for want of strength. The spasmodic twitchings *now begin to diminish*, and for some hours before death they have entirely passed off.

"A sickly smell attends the patient, but there are no disengagements of gaseous compounds into the areolar tissue, (the loose open tissue connecting the skin and flesh of cattle particularly,) nor any other indications of the decomposition of the tissues which have been spoken of by some writers. In short, the animal dies, apparently, and almost without convulsions, from pure prostration of the vital powers. In those cases which recover, no pustules (pimples) have been observed as forming on the skin, nor any desquamation (scaling) of the cuticle (the outer and insensible skin, that which thickens on the hands of the laborer) or fall of the hair. Nor have any ulcers of the eyes, nostrils, or muzzle been noticed in either extreme or protracted cases.

"*Duration.*—In all cases which tend to a fatal termination, the animals rarely live beyond the fourth day after the symptoms have shown themselves, while very many of them will sink as early as the second day. The greater number, however, die on the third day of the attack. In those which recover, some diminution in the severity of the symptoms usually take place on the third or fourth day, and if the patient survives this time, even should the symptoms not abate, it is regarded as a favorable indication of ultimate recovery. The return to perfect health is rarely effected in less than three weeks, but much will depend on the age and constitution of the animal, as likewise on the amount of the structural disease in the mucous membranes of the alimentary canal, and not a little also on the care and attention which are bestowed upon the patient.

"*Percentage of deaths.*—If the pest be allowed to take its natural course for only a few days, it will be found that the deaths not unfrequently number 90 *per cent.* Fat animals and those which are well cared for are found to bear up very badly against the disease.

"*Pathology.*—It is difficult to speak with certainty of the true nature of the rinderpest, but it is evident that the morbid matter on which it depends, having entered the system through the medium of the organs of respiration, soon acts upon the blood, by converting some of the constituents of that fluid into its own elements; and that, while this process is going on, the animal gives no recognizable indications of being the subject of the malady. This period constitutes the incubative stage of the disease. The blood having thus become contaminated, its vitality impaired, and the poison augmented a thousand-fold within the organism, (organs essential to life,) the brain and nervous systems, as the centres of sensation and motion, have their normal functions necessarily and quickly interfered with, and hence one of the earliest indications of the disease is a spasmodic twitching of the voluntary and other muscles of the body.

"The malady has now arrived at a stage when nature makes a bold effort to rid the system of the poison, and in doing this the force of the morbid matter, so to speak, falls with more or less severity upon the mucous membranes throughout the entire body. Effusions of lymph, the fibrine of the blood, take place in the follicles (open places or little sacks or bags) of the mucous membranes, as an effort, perhaps, in part, of the overtaking of these grand excretory organs, and partly because the fibrine itself is charged with the



*meteries morbi*, (morbid matter or poison of the pest,) and has probably also lost some portion of its vitality, which renders it unfitted to remain in the vessels. Dark-colored blood, which remains *fluid* even after death from its defibrination, (the destroying the fibrine of the blood, which is the component part of the blood that produces coagulation,) now flows in vessels, and dysenteric purging also sets in, under which, as a rule, the animal quickly sinks."

From these remarks it will be seen that the poison affects the blood, and, as in the case of the spotted fever or spinal meningitis, now prevailing as an epidemic in the north of Germany among the human race, it destroys the fibrine of the blood. There follows an exudation or pouring out from the blood the infected parts of it; in the case of the spotted fever through the lubricating membranes surrounding the brain and spinal marrow, and in the rinderpest through the mucous surfaces of the intestinal canal, that is the mouth, throat, stomach, and intestines, leaving untouched, in a great measure, the kidneys, liver, heart, and brain. In this effort to throw off the poison the system sinks, and the animal dies more from exhaustion of depletion than from exhaustion caused by pain or from want of action on the part of the vital organs.

2. *The measures adopted to eradicate the plague.*—In the treatment of the rinderpest it was soon seen that no medicine was successful against its power. Ninety per cent., as we have seen, of those that were attacked died, and the few that recovered were saved either from the lightness of the attack or by the strength of the constitution of the animals. The sole aim, upon the introduction of the disease, was to eradicate it as quickly as possible, and to prevent its spreading. We shall presently advert to the character of the measures adopted among the German nations for both these purposes.

The removal of the prohibitory duties upon breadstuffs and provisions that existed in Great Britain prior to 1846 led to heavy importations of live cattle into that country from the nations of Europe nearest to it. This trade, in its ultimate effects, reached into Russia, by causing a demand for its cattle from the German nations, between it and Great Britain, to supply the place of the cattle they had exported to the latter. The general movement thus induced, as well as the movement of Russian cattle from the steppes to supply the armies of Russia in the war against England and France, introduced the rinderpest among the German nations.

The measures they adopted proclaim the character of the disease, and from them, as well as from what we have already given as to the character of the disease itself, we may derive such information as points us to our own duties at this time.

The following proceedings in the government district of Oppelin, in Silesia, (Austria,) will give to the reader a correct idea of the prompt and rigid action necessary upon the introduction of the plague:

"1. Twenty oxen were brought into the estate of Schwieben, in the circle of Tost-Gleiwitz, and on their arrival they were distributed to the different farms of the estate. The disease broke out among these animals, and as they sick-



ened they were removed to a farm where sheep only were kept and here slaughtered. A military cordon was also drawn around the place. Notwithstanding this precaution the disease spread, thus :

“*a. In Schwieben* one ox was attacked, and he, with another with which he was standing, was immediately killed. The further progress of the disease was at once arrested, although there were 120 head of other cattle on the estate, and in the village about a hundred cattle owners.

“*b. Farm Radun*—An ox which showed premonitory symptoms was immediately killed, together with another that he was standing next to, and no other cases have occurred.

“*c. Farm Wischnitz*.—The appearance of the rinderpest at this station is very remarkable. It appears that either four or six of the Podolian oxen were sent here and remained for a few days. These animals gave no evidence of being affected, but *twenty* days after their departure one animal of a herd of nineteen that they had been placed with fell ill with the disease, and the whole were forthwith slaughtered.

“*2. Estate Ponischowitz*.—Twenty Podolian oxen came here on the same occasion, and they within a few days gave indications of being affected. Like the others, also, they had been put with other cattle, forty-nine in number. On the occurrence of the outbreak the whole were killed, so that not a single head of cattle was left on the estate. The place was likewise surrounded by a military cordon ; but while the disease was going on a carpenter’s apprentice, employed on the estate, escaped the vigilance of the guards and went to his father’s house, which was distant about two thousand paces. While there he repaired a manger in his father’s cowshed, and also changed the clothes he had worn at Ponischowitz. The rinderpest, in consequence of this, broke out among his father’s cattle. The whole were thereupon killed, and a military cordon drawn around the premises.”

Other cases of a like character are stated, in which the same prompt and vigorous measures were taken—the immediate slaughter and burial of all the animals affected, and all others they had come in contact with. It will be seen that the disease is wholly infectious by contact only—a contagious one ; but capable, as seen, to be communicated by the clothes of a person who had been where the disease was, by these clothes coming in contact with stalls into which cattle came afterwards.

As a consequence of this liability to receive the disease through the medium of dress, every portion of the animals slaughtered is destroyed, the hides being so cut as to render them worthless, that no person would surreptitiously take and sell them. In Bavaria the following provisions are enforced :

“During the continuance of the disease no cattle, dead or alive, are allowed to be brought across the frontier. Flesh, hides, entrails, horns, hair, and tallow of cattle, and bones, whole or crushed, of any animal, with their hair, wool, or bristles, are also specially prevented crossing by the cordon ; as are woollen cloths, scutchings of leather, feathers, farm-yard manure, hay, clover, straw, and all other descriptions of cattle fodder.

“When the disease occurs on a farm the affected animals are not removed from the sheds, but the apparently healthy are taken to the quarantine station. Each commune is obliged to provide a station of this description, which is built of wood and divided into two parts, one for the doubtful cases and the other for the supposed healthy. The commissioners have the power of allowing medical treatment of the animals, but the veterinary surgeon must remain in quarantine and receive all that he requires at the end of a long pole. All

churches, schools, and public houses of the district are closed, so as to prevent the congregating of people together, and remove those inducements which might cause persons to come from infected towns.

"On the occurrence of illness among cattle from *other* causes, as well as the pest, the commissioners, as a rule, do not approach the animals, but standing at a distance, and within sight of them, they arrive at a decision as to the nature of the ailment, frequently ordering some food to be offered as a test of their freedom or otherwise from the malady. In those instances where the commissioners enter the stable, they are compelled before leaving to wash their hands, &c., in vinegar, and have their clothes fumigated with chlorine gas. All dogs, cats, rabbits, domestic poultry, pigeons, &c., have to be kept in places of security and close confinement. If the disease exists in a village through which a high road runs, the course of the road is turned if possible; but when this is not practicable, then a guard accompanies the several travellers who arrive at the boundaries of the *cordon* to see that they do not go upon any of the infected premises. The *cordon* is frequently maintained by the peasants, but none are taken for this purpose from an infected village, the selection being made from contiguous villages or farms where the cattle are healthy.

"As soon as a malady is observed in a commune, notices are sent to all the surrounding places, that precautionary measures may be immediately adopted by the owners of cattle. Each commune has to provide a place for the burial of the animals which die or are slaughtered, and also a wagon and horses to carry them upon; and on the disease passing away the wagon is burned and the horses are washed with a solution of chlorinated lime. The place of interment is likewise enclosed, and not allowed to be disturbed for several years."

In these extraordinary measures we read the no less extraordinary contagious nature of the disease. Small-pox among the human family, and where unprotected by vaccination, has never, perhaps, possessed an equal power to propagate itself or to destroy life. We see in the case where the apprentice went to his father's and repaired a cattle stall, that his clothes carried the infection and left it upon the work he was doing, to become a fatal medium of imparting the disease. Surely a disease so malignant called for the energetic measures adopted among the German nations, and demanded upon the part of the English government an unceasing care to prevent its introduction into the British islands.

The following are some of the conclusions of the report of Professor Simonds, and we now see that the last one may have had a too quieting influence on the watchfulness of the agricultural societies of Great Britain, and thus so fatal a disease has at last passed "through hundreds of military cordons" and found its way, not only through both eastern and western Germany, but into Great Britain itself.

*Conclusions of the report.*—The report contains, among others, the following conclusions:

"That all the facts connected with the history of the outbreaks of the rinderpest concur in proving that the malady does not spread from country to country as an ordinary epizootic, and that if it were a disease exclusively belonging to this class, the sanitary measures which are had recourse to throughout Europe would be inefficient in preventing its extension, and consequently that in all probability we should long since have been both practically and painfully familiar with it in this country, as hundreds of our cattle would have succumbed to its destructive effects.

"That it is one of the most infectious maladies of which we have any experience, and that it is capable of being conveyed from animal to animal by persons and various articles of clothing, &c., which have come in contact with diseased cattle.

"That the ox tribe is alone susceptible to the disease; and that the morbid matter on which it depends lies dormant in the system for a period not less than seven days, and occasionally, according to some continental authorities, *as long as twenty days*, before the symptoms declare themselves.

"That the deaths often amount to 90 per cent.

"That the malady is one in which the blood is early if not primarily affected; and that subsequently the mucous membranes throughout the entire body become the principal seat of the morbid changes.

"That all varieties of medical treatment which have as yet been tried have failed in curing the disease; the recoveries which take place having for the most part depended on the healing power of nature.

"That no fear need be entertained that this destructive pest will reach our shores. Its present great distance from us would of itself afford a fair amount of security; but when we add to this that no cattle find their way from thence directly or indirectly to the English market, and also, in the event of the disease spreading from Galicia, it would have to break through hundreds of military cordons, one after the other, before it could possibly reach the *western side* of the German States, and, moreover, that for years past commerce has been unrestricted with regard to skins, hides, bones, &c., of cattle from Russia and elsewhere, all alarm, we believe, may cease with reference to its importation into the British isles."

3. *The duty of our government to guard against the introduction of the disease into the United States.*—In a government of so great an extent, it is no easy matter to protect the nation against the introduction of epidemics, or epizootics. Still, effective quarantine regulations may be adopted in diseases like that of the rinderpest, which is not atmospheric in any application of the word; it is strictly contagious. Let us not rest in fancied security that it is too rapid a disease to be continued in a voyage across the Atlantic. We see that the disease may be, not *dormant*, as is the term, but *undisclosed*, for *twenty* days. Suppose an animal, just infected with the disease, to be taken on ship with others; it may be near our shores, or indeed on them, before it is known to be diseased, or if the disease is developed before being landed it would have communicated it to others, and these would be in apparent good health when arriving here. Two measures can, therefore, be adopted by the government: it can require that no animal of the cattle kind shall be shipped in vessels coming to the United States from Great Britain or Europe, unless they have been in quarantine there for three weeks before being put on board; that when any animal is attacked on ship-board by the pest, it and all others on board shall be instantly killed; and that places of quarantine shall be prepared at certain ports, into which only shall cattle be brought from England or Europe, and there held for one month after landing; or else positively prohibit the importation of cattle whilst the disease remains in Great Britain, or from any port in that European nation in any part of which the disease exists. The importation of cattle from a country where this disease is, is nothing less than treason to our agriculture. All other measures guarding against the introduction of the disease through the clothing of persons



who might have had contact with a diseased animal on shipboard will have to be adopted, if importation of cattle is permitted. How far it is necessary to restrict or prevent commerce in any parts of the cattle kind, as the hair, horns skins, &c., with countries where the disease prevails, must be left to the judgment of that department that has commerce under its supervision. But it is not the duty of this government to rest, as did Mr. Simonds, in the fancied security "that no fear need be entertained that this destructive pest will reach our shores, by reason of its great distance from us," or that it cannot break through the *cordon* of the Atlantic, to desolate our country.

Let the government imagine this disease prevailing in the west, infecting the herds there; infecting the cars that bring the beef cattle from the west; infecting every pen in which they are kept at the places of market, every butcher's establishment, and then imagine what kind of meat will be exposed to sale at the butchers' stalls, when this disease has polluted the blood and flesh before indications of its presence are given by the nervous and muscular twitchings. Let it look to the immense pecuniary loss that the people would sustain in a country like ours, having so large numbers of cattle, oxen, and cows, such important butter and cheese dairies, and an internal traffic in them that would spread the disease into every part. Let it remember that such measures as are taken in Europe to prevent the spread of the contagion cannot be easily enforced here, and then, in view of all these calamities, determine whether timely action to prevent the introduction of the disease is not better than to risk the control of it when once it is introduced.

A lesson of duty has been taught to us by the hog cholera. It originated on Laughery creek, at Aurora, Dearborn county, Indiana, whether through the agency of the large distillery there or not is a mooted question. But a "military cordon," with those rigid precautions adopted by the German nations against the rinderpest, might have saved the hundreds of thousands of hogs destroyed by it, and, what is as bad, the fixing on the country this fatal disease as one of the normal diseases of the country. If the State of Massachusetts had been less energetic or less true to its agriculture and that of the whole country, when the pleuro-pneumonia was introduced into that State by importation of diseased cattle, that disease might have been, as it now is in England and Europe, and as the hog cholera is here, ineradicable.

Since writing this article, additional intelligence has been received from England as regards the introduction there of this disease. It seems that the Russians desired a more direct cattle trade with Great Britain than through the German nations, and for this purpose sent some cattle direct to Great Britain in vessels. The rinderpest was among them and communicated to other imported and native cattle at Islington cattle market; from thence was taken to the Metropolitan cattle market. In this market both fat and stock cattle are sold, and hence, when farmers and dairymen purchased them, the disease was quickly introduced into many parts of the country. The nation is alarmed, but the measures adopted to eradicate it are much less rigid and efficacious than those we have noticed



in the German nations. Great Britain cannot well stop all importation of cattle, as they are needed for food; but in the United States cattle are not imported, except for breeding, and as we now have animals equal to any in Great Britain, there is no necessity demanding an importation at all. Hence it may be prohibited without any oppression whatever.

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## THE CONDITION OF THE CROPS AND PRICES IN FOREIGN COUNTRIES.

We continue our quotations from the *London Mark Lane Express*, showing the progress of the English harvest, and of the principal European nations, and the effect of these harvests on prices.

The *Express* of August 7 says :

"After such favorable reports, week after week, on the weather, we have passed into a period of change very much against the successful harvesting of the crops. But according to the dogmas of astro-meteorology, farmers were to have taken advantage of the fine opportunity afforded at the commencement of August to get on with the harvest work; but surely there must be some mistake in the reckoning. This change has not only stopped the downward tendency of prices, but generally given them a turn to the full extent of 24 cents per 480 pounds; and unless the weather takes up, matters will assume a serious aspect. There are symptoms, however, that we have seen the worst, and if so, not much harm will have been done. In France the upward movement has continued, the estimate of the yield in some localities being very deficient, and in Belgium and parts of Germany there are no signs of a produce equal to last year. If, therefore, the weather should prove bad, much mischief must accrue, and with the cattle plague before us, on the back of high prices for meat, it would be strange indeed if wheat should not reach its relative value. Beyond these doubts as to the crops, the potato disease is reported to be daily spreading in Germany, and such a change as we have recently had may probably have the same effect here on the late potatoes not yet gathered."

The same paper of August 14 remarks :

"From Monday to Thursday afternoon the weather in the neighborhood of London was favorable to harvest work, and the position of markets was consequently doubtful; but with the return of rain more uneasiness was evinced, and it now seems certain that there must be considerable varieties in the qualities, even should they be free from sprout. Prices with the change of prospect have altered, and a gain of about 48 cents per 480 pounds has been very generally established during the past week, while there is evidently room for a much more considerable advance should the harvesting be unpropitious. England is not alone in her apprehensions, as the rise in France has surpassed our own; and though Germany has not evinced much sensitiveness in this way, still, as her crops do not promise abundance, she will take care, as usual, not to let the opportunity escape her. Having been in several places relatively dearer, it was against business to move too fast, and, doubtless fresh orders would find higher markets. Belgium and Holland, having gathered about three fourths of their new crops, find enough on their markets to check any important movement, the demand being as yet only consumptive, but speculation would soon change the quiet face of things. At Hamburg prices were improved, but Dantzic being high for the best qualities, which alone are wanted by town millers, did not show any advance."

The *Express* of August 21 remarks :

"The weather of the past week has been again of a treacherous character ; now and then full sunshine, and anon smart showers, anything but propitious to the harvesting of the grain. As might be expected, there are already complaints of sprouting and mildew, and the new samples that have hitherto appeared do not favor the impression that we have either a good yield or quality. With such a catching time on prices so low, and the country in a perfect state of alarm about the cattle disease, it is not to be surprised that we are able to note a further advance of fully 48 cents per 480 pounds on the average, and some places noted doubly as much. But the rates hitherto reached have only a moderate range ; and as the British farmer during the cotton famine was feeding the half-starved Lancashire men partly at his own expense, now that the American war is over, some remuneration for sunk capital and fruitless labor seems his due. Should the cattle disease reach to the height of a national visitation, there is no question but a much higher range of prices would set in ; but as extremes of all kinds are deceptive and injurious, we hope that the threatened scourge will find a remedy, and that the grazier, as well as the farmer, will be righted in the end. Foreign accounts too much agree with our own as to defective and injured crops to give much expectation of a return to very low prices. France, Belgium, Holland, Germany, some parts of Russia, and southern Europe, all tell the same tale, and prices, generally, have risen. With more samples of new exhibited at Paris, some dullness has appeared, but in the country prices have gained ground, and all along the Baltic there is a different range, Dantzic holding, as we expected, for fully 96 cents per 480 pounds more money."

The *Express* of August 28, has the following comments on the harvests :

"Though the weather of the past week has been unsettled, and a day's rain fell on Wednesday, there have been intervals of fine weather which have permitted much grain to be gathered, though in only doubtful condition ; but a great deal of barley is still out and in danger. Progress has also been making, though with difficulty, on the continent, more especially in France, so that some quantity has been gathered, but very little of the new will be fit for shipment before spring, and whatever may then be its condition, we do not expect much from the quality. A partial pause to the upward tendency of prices might, under the circumstances, have been expected, and a good many places this week were without any further rise, though some were again dearer 24 to 48 cents per 480 pounds, and much yet depends on the weather of the next fortnight, as the yield is not large enough to bear any diminution without enhancing the value of the rest. As new wheat, in good condition, will for some time be the exception rather than the rule, old cannot fail to be held at full prices. Recent accounts from Poland are worse than any previous, the condition of the farmer there being deplorable from the heavy losses sustained by hail and rain, so that all along the Baltic a higher range of prices has ruled, Hamburg having followed Dantzic in the advance of 96 cents per 480 pounds, while shippers at the latter port talk of stopping sales altogether, in the firm conviction that very little will be fit for the English market. The other great source of supplies—America—has been still advancing, a speculative inquiry having commenced at New York on western account ; and though southern Russia continues to send freely from her stocks of old, which as freely have sold at advancing rates, the new produce will be meagre in quality and more so in the yield. France, indeed, having been better supplied with new samples, notes some check as to prices, but Belgium now speaks of speculative inquiries, and Holland notes some improvement. In the midst of these doubtful cereal prospects, *it is admitted that the cattle disease has settled in our midst, with no remedy at hand.* He, therefore, must have a very peculiar view who anticipates low prices for grain."

The same paper of September 4 says :

“The weather having taken up and become fine during the past week, those who were in arrears as respects harvest work have taken every advantage of it, so that the earliest and latest gatherings will probably turn out the best. Beans excepted, the bulk may be considered as gathered; but we fear that nearly three-fourths of the wheat will be in bad condition. Should the long continuance of low prices oblige farmers to send much of this prematurely to market, a heaviness may come over the trade, and a check be so given to prices for a season; but the generally acknowledged deficiency, both in quantity and quality, cannot fail to be felt as stocks get diminished. Old wheat has either fully maintained its former prices or been held at more money, but new, from its inferiority, has, in many instances, given way in value. Our neighbors, the French, have had the same kind of markets, only with an early harvest their new wheats have been more plentiful and occasioned some decline. In Belgium and Holland some slight improvement has been noted, but Germany, on the whole, has very little altered since our last. The high prices of Hamburg and Dantzic have not been lowered. Our crop of potatoes is said to be extremely affected by the disease since the heavy rains, though the recent change to fine weather may stay its progress.”

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## CONSUMPTION AND PRODUCTION OF WHEAT AND CATTLE IN GREAT BRITAIN AND IRELAND.

In reply to an inquiry made by a Cornish farmer the *Mark Lane Express* of London, makes the following statement of the amount of wheat grown in the United Kingdom, and of the live-stock for food and meats imported by it :

“We estimate (says that paper) the average consumption at six bushels per head; and as the population, in round numbers, amounts to 30 millions, the entire consumption is 180,000,000 bushels; that for the seven years prior to 1864, the average importation was 56,000,000 bushels. If this amount is deducted from the estimated consumption, there will leave for home production 124,000,000 bushels. The general importation, then, is about *one-third*, and the home production about *two-thirds* of the consumption.

“For the seven years prior to the 1st of January, 1857, the average importation was 40,000,000 bushels; so that the importation of the seven years commencing with 1864 will probably be 72,000,000 bushels annually.

“With regard to the importation of cattle, we find that in seven years up to January 1, 1864, the number of cattle of all kinds and ages imported amounted to 719,191, or an average of 102,741 head annually; and the number of sheep and lambs for the same period was 1,975,663, or an average of 282,237 per annum. As to the number bred in the United Kingdom, there are no reliable statistics whatever on the subject, nor can we hazard an opinion which would be only conjectural. It would be equally impossible to obtain an estimate of the average prices without a knowledge of all the cattle markets in the kingdom, the study of which would require weeks to accomplish. In addition to the above importations of live cattle, there have been imported during the same period of seven years 98,685,056 pounds of dead meat, consisting of bacon, hams, and beef, or an average of 14,097,865 pounds annually, the average price of which it is equally difficult to ascertain.”



## FLAX PRODUCTION IN IRELAND.

The following table gives the average of flax production in Ireland, as stated in the *Mark Lane Express*:

<i>Years.</i> *	<i>Acres.</i>	<i>Years.</i>	<i>Acres.</i>
1851 .....	140,536	1859 .....	136,282
1852 .....	137,008	1860 .....	128,595
1853 .....	174,579	1861 .....	147,957
1854 .....	151,403	1862 .....	150,070
1855 .....	97,075	1863 .....	214,099
1856 .....	106,311	1864 .....	301,693
1857 .....	97,721	1865 .....	251,552
1858 .....	91,646		

## CANADIAN MATTERS.

### STATISTICAL INFORMATION OF THE CROPS.

The *Canada Farmer*, published at Toronto, Upper Canada, expresses the following just views in relation to the value of early and full statistical information of the crops. In its issue of September 1 it says:

“Now that the cereals are harvested and the root crops alone remain to be heard from, a very natural curiosity is felt by everybody to know the results of the farmers’ toil the present season, so far as they can be ascertained. It is greatly to be regretted that there are no means in operation for definitely arriving at the desired information, and one can hardly help giving way to a feeling of vexation at the impossibility of getting in plain figures the produce returns or the whole land at once. So much depends on the success or failure of the crops, and every description of business is so affected by the agricultural prosperity of the country, that it is a pity we cannot have some method put in operation by which as early as possible we can know the truth regarding a matter so universally and so deeply interesting.

### THE CROPS OF CANADA.

The same paper has the following notice of Canadian crops this year:

“The reports of the local journals are very meagre indeed; it is remarkable how meagre they are, and how small an amount of space is given in them to the leading interest of the country. But it is gratifying to observe that these ‘few-and-far-between’ notices, with scarcely an exception, concur in giving the most favorable accounts of the harvest just gathered in. The testimony of travellers, and our own observation, somewhat limited, it must be confessed, are in entire accord with these accounts. The early part of the season was particularly favorable for putting in spring crops. Grass got an early start, made a fine growth, and the hay crop, everywhere good, was in many localities extraordinary. A large yield of hay is a fine foundation to begin with. It means plenty of meat, plenty of milk, and plenty of manure. Dry weather set in throughout a large extent of country about haying time, and continued so as to affect somewhat seriously the straw of the various kinds of grain, and the growth of the early root crops. Late-planted potatoes are more flourishing and promise a far better

yield than those which were got in early, thus reversing the usual order of things, and furnishing an illustration of the uncertainties that beset the husbandman's calling."

#### THE RECIPROCITY TREATY.

The *Toronto Leader* says that large quantities of sheep, cattle, horses, and pigs are daily purchased in that city for the United States markets; that many articles of Canadian manufacture and growth are also daily sent across the line, and that a few years ago the same articles were largely imported from the United States by Canadians.

### EXPORTS AND PRICES OF FARM PRODUCE.

*Exports from New York of the leading agricultural products from January 1, 1865, to September 12, compared with those for the same time in 1864, and their prices in New York and Chicago.*

Articles.	From January 1, 1865, to Septem- ber 12.	From January 1, 1864, to Septem- ber 12.	Prices September 12—New York.	Prices September 12—Chicago.
Wheat flour.....bbls..	970,967	1,553,382	\$7 00 to 11 00	\$5 00 to 11 00
Rye flour.....bbls..	1,803	2,320	5 50 to 6 10	5 70 to 5 85
Corn meal.....bbls..	98,872	86,021	.....	.....
Wheat.....bush..	1,646,864	10,998,797	1 60 to 2 08	1 26 to 1 60
Corn.....bush..	1,506,368	709,293	88 to 89½	56 to 62
Rye.....bush..	154,214	453	.....	69 to 71½
Barley.....bush..	.....	150	1 25	79 to 85
Oats.....bush..	54,673	31,185	52 to 55	27 to 31¾
Peas.....bush..	36,928	164,597	1 35 to 1 40	.....
Cotton.....bales..	55,691	25,253	45 to 45½	.....
Hay.....bales..	23,102	26,618	60 to 85	60 to 70
Hops.....bales..	13,239	17,399	30 to 60	37 to 60
Leaf tobacco.....hds..	55,984	49,282	7¼ to 22	.....
Leaf tobacco.....pkgs..	59,570	51,611	.....	.....
Manufact'd tobacco.....lbs..	2,971,000	3,760,491	.....	60 to 1 25
Petroleum.....galls..	7,503,697	14,977,713	58 to 60	.....
Beef.....bbls..	90,274	110,888	30 00 to 32 75	30 50 to 31 00
Beef.....bbls..	28,895	29,405	8 50 to 14 50	8 00 to 14 00
Beef.....tierces..	39,502	42,827	.....	.....
Cut meats.....lbs..	29,255,873	86,002,413	15 to 23	14½ to 22
Butter.....lbs..	9,145,047	9,014,238	25 to 42	22 to 32
Cheese.....lbs..	32,035,057	31,371,524	11 to 16½	10 to 18
Lard.....lbs..	18,733,468	48,595,172	21 to 27	25 to 25½
Tallow.....lbs..	13,931,311	25,282,920	15¾ to 16½	.....
Wool, (fleece).....lbs..	.....	.....	57½ to 77	50 to 55

## MOVEMENTS OF PRODUCE.

*Receipts at New York for the first eight months of the years 1863, 1864, and 1865.*

Articles.	1863.	1864.	1865.
Ashes .....	12, 623	11, 531	13, 126
Wheat flour .....	2, 826, 595	2, 477, 117	1, 944, 574
Corn meal .....	162, 540	196, 147	242, 266
Wheat .....	9, 258, 046	8, 743, 754	4, 270, 556
Rye .....	311, 430	311, 430	93, 561
Oats .....	5, 687, 586	5, 582, 042	5, 868, 130
Barley .....	485, 718	832, 744	676, 487
Corn .....	10, 393, 219	4, 297, 656	6, 514, 712
Peas .....	32, 541	167, 319	84, 423
Cotton .....	71, 000	159, 542	301, 794
Crude turpentine .....	1, 397	1, 411	14, 863
Spirits of turpentine .....	3, 721	2, 112	8, 767
Rosin .....	7, 304	9, 782	63, 680
Tar .....	9, 223	3, 941	5, 518
Pitch .....	1, 015	1, 554	667
Pork .....	384, 093	264, 247	177, 257
Beef .....	59, 965	62, 182	56, 637
Cut meats .....	425, 834	243, 649	96, 207
Butter .....	192, 389	299, 283	387, 390
Cheese .....	299, 343	332, 492	378, 107
Lard .....	361, 334	156, 502	84, 713
Lard .....	34, 651	15, 802	2, 968
Whiskey .....	172, 423	253, 478	38, 529
Petroleum .....	.....	473, 322	341, 174

## THE NATIONAL DEBT.

The debt of the United States on the 31st day of July, 1865, the annual interest accruing thereon, and the entire annual interest on the whole debt, are as follows :—

*Debt bearing gold interest.*

	Principal.	Interest.
Five per cent. bonds .....	\$199, 792, 100 00	\$9, 989, 605 00
Six per cent. bonds .....	908, 870, 541 80	54, 532, 232 50
Total bonds bearing coin interest .....	1, 108, 662, 641 80	64, 521, 837 50

*Debt bearing currency interest.*

Four per cent. temporary loan .....	\$646, 936 56	\$25, 877 46
Five per cent. loan and notes .....	63, 853, 497 90	3, 192, 674 89
Six per cent. loans, certificates, and bonds .....	182, 534, 640 59	10, 952, 078 43
7 $\frac{3}{4}$ % Treasury notes .....	830, 000, 000 00	60, 590, 000 00
Total currency interest bonds .....	1, 077, 035, 075 05	74, 760, 630 78

*Debt on which the interest is not due for three years.*

Six per cent. compound interest notes .....	\$212, 121, 470 00	\$13, 575, 774 08
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*Debt on which interest has ceased.*

Bonds and notes.....	\$1,527,120 00
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*Debt drawing no interest other than currency.*

Uncalled for requisitions and miscellaneous.....	\$15,736,000 09
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*Debt bearing no interest, being currency.*

Notes known as greenbacks.....	\$433,160,569 00
Fractional currency.....	25,750,032 51
	<hr/>
	458,910,601 51
Deduct from these coin and currency in the Treasury.....	116,739,632 59
	<hr/>
Currency debt.....	342,170,968 92
	<hr/>

*Recapitulation.*

	Principal.	Interest.
Debt bearing gold interest.....	\$1,108,662,641 80	\$64,521,837 50
Debt bearing currency interest.....	1,077,035,075 05	74,760,630 78
Debt on which interest is not due for three years...	212,121,470 00	13,575,774 08
		<hr/>
Total interest.....		152,858,242 36
		<hr/>
Debt on which there is no interest and not currency	\$17,263,120 09	
Debt bearing no interest, currency.....	342,170,968 92	
	<hr/>	
Total debt.....	2,757,253,275 86	
	<hr/>	

From this table it will be seen that the annual interest accruing on the amount of the national debt as it was on the 31st day of July last is \$152,858,242 36, but of which \$13,575,774 08 are not payable until the expiration of three years, when both principal and the three years' accumulated interest will become due.

## THE AMOUNT OF THE CURRENCY JULY 31, 1865.

*United States currency.*

Five per cent. notes.....	\$39,954,230 00
Six per cent. compound interest notes.....	212,121,470 00
Greenbacks not bearing interest.....	433,150,569 00
Fractional currency.....	25,750,032 51
	<hr/>
	\$710,976,301 51
National banks circulation.....	157,907,665 00
Supposed amount of State banks' circulation.....	80,000,000 00
	<hr/>
Total circulation.....	948,883,966 51
	<hr/>

## REVENUES OF THE GOVERNMENT

*For the fiscal year ending June 30, 1864.*

From internal taxes as follows:

On manufactures and productions.....	\$75,403,386 60
On slaughtered animals.....	695,201 68
On advertisements, ferries, express companies, &c.....	2,895,998 63
For licenses.....	7,145,388 71
On incomes.....	14,919,279 58

On legacies .....	310,836 18
On carriages, billiard tables, yachts, plate, &c.....	520,283 35
For penalties, &c.....	185,224 94
On sales, &c.....	138,082 43
For passports .....	483 00
From banks, insurance, railroad, canal, and turnpike companies .....	7,017,547 03
On salaries .....	1,705,124 63
For stamps .....	5,894,945 14
Sundries .....	18,890 54
	<hr/>
Deduct expenses, salaries, &c., of assessors and collectors.	116,550,672 45 5,528,884 60
	<hr/>
Net total.....	111,021,787 85
Net amount collected.....	108,469,922 62
	<hr/>
Amount not paid over .....	2,551,865 23
	<hr/> <hr/>

The chief revenues of the government, being from internal taxes and customs, were for 1864 as follows:

Payable in currency, internal taxes .....	\$108,469,922 62
Payable in coin, customs.....	67,926,585 00
	<hr/>
Total .....	176,396,507 62
	<hr/> <hr/>

For 1865 the revenue from internal taxes will be much greater.

Total amount of annual interest on debt, July 31, 1865....	\$152,858,242 36
Total annual interest payable in coin.....	64,521,837 50
	<hr/> <hr/>

It will be seen from the foregoing statement that the chief part of the internal taxes is derived from manufactures. It will be interesting, therefore, to show the amount paid in 1864 by each of the principal manufactures. It will be useful, too, as much legislation will always arise in relation to the taxes on these manufactures, for it is human nature, perverted it is true by self-interest, to seek to throw off public burdens even if they fall with greater weight on some other interests as much entitled to equality and justice.

The articles, and the amount of taxes paid by each in 1864, are as follows:

Articles.	Taxes.
Cigars .....	\$1,255,424 89
Coal .....	572,436 54
Confectionery .....	465,793 15
Cotton .....	1,268,412 56
Cotton goods.....	3,548,176 51
Distilled spirits .....	28,431,797 83
Fermented liquors .....	2,223,719 73
Gas.....	714,740 13
Iron manufactures .....	3,202,855 14
Leather.....	3,717,433 87
Material in manufacture.....	6,285,076 32
Oil (petroleum).....	2,201,573 20

Paper .....	911, 914 72
Sugar, raw .....	1, 267, 616 28
Sugar, refined .....	873, 139 85
Tobacco, manufactured .....	7, 086, 684 74
Wooden ware .....	1, 679, 940 25
Wool (manufactured) .....	3, 647, 246 61

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## GRAPE CULTURE IN CALIFORNIA.

Our correspondent, W. S. Powell, of Tulare county, California, writes to the department on the 8th of August, and, among other matters of interest, thus speaks of the vineyards of that State. We have heretofore frequently referred to its favorable climate for grape production, but it is even better than we had supposed. He says:

"I do not think you have any just conception of the adaptability of this country for the production of wine. Practical experience enables me to say that 1,000 gallons of pure wine is but a fair yield from an acre of vines six years old; and what may seem to you more incredible, Mr. James Persian, our largest cultivator of the grape and most experienced vintner, assured me but a few days ago that he candidly believed, in a favorable season, he could select an acre in his vineyard that would yield 2,000 gallons of wine. So peculiarly favorable is the climate that the most tender European varieties are perfectly hardy here. The Chasselaïs, Fontainebleau, White Chasselaïs, and Black Prince are now ripe."

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## COLORADO.

The following brief letter to the Commissioner of Agriculture gives us a glimpse at the progress of agriculture in the mining regions of the Rocky mountains, and shows that there are no difficulties that American energy cannot overcome:

BOONVILLE, COLORADO, *August 24, 1865.*

SIR: I have just returned from a ten days' trip over this country, and was astonished to see the great quantity of corn growing in this vast Territory, all watered by irrigation. I saw a field of 900 acres of wheat, corn, and oats, the latter from 3 to 7 feet high, with large tops leaning over with heavy full grain, to be compared only to a rich plume, and the corn having full and large ears. The owner of this field had another of 300 acres which I did not see, but said to be superior to the one which I did see. Many other ranches have from one to eight hundred acres, with handsome adobe (unburnt brick) cottages. I can



scarcely realize *now* and forty-two years ago, when I passed through this vast, and then considered unfertile, country, so rapidly is it growing up. Yet much of the country, and perhaps two-thirds of the valley and homes, are not occupied or in cultivation this year, owing to the Indian massacre on Sand creek last winter. The settlers knowing the Indian determination for revenge, many of them left the country, and the Indians are now reeking their vengeance on emigrants and trains on every occasion. Still I think that government will be largely supplied by the farmers with corn, which would otherwise have to be brought by wagons a distance of 800 or 1,000 miles from the States of Kansas, Missouri, Iowa, and Nebraska. Grass of the best quality for hay is abundant in the valley, whilst the finest gama grass for fall and winter grows abundantly on the uplands.

Respectfully,

A. G. BOONE.

Hon. ISAAC NEWTON.

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## THE CONDITION OF THE CROPS.

The following table exhibits the condition of the crops on the 1st day of September, 1865. The answers to questions asked the correspondents of the department are given in *tenths*. The figures 10 represent the *appearance*, *injury*, or *amount* of the crop; and if the appearance should be *one-tenth* below an average appearance, it is stated 9; if *one-tenth* above, it is given as 11; and so for any lesser or greater number of tenths. The *injuries* are given *directly*; 1 meaning that there is an injury of one-tenth, and  $\frac{1}{2}$  or  $\frac{4}{7}$  means that the injury is but a half or four-sevenths *of one-tenth*.

Table showing the condition of the crops on the 1st day of September, 1865.

STATES.	WHEAT.	OATS.	CORN.		TOBACCO.		SORGHUM.		POTATOES.	
	Injury from weather.	Injury from weather.	Appearance of crop on 1st September, and whether weedy.	Injury from all causes.	Appearance of crop on 1st September.	Injury from all causes.	Appearance of crop on 1st September.	Injury from all causes.	Appearance of crop on 1st September, especially as to overgrown tops.	Injury from all causes.
Maine.....	$\frac{1}{13}$	$\frac{9}{13}$	10	$\frac{3}{4}$	$10\frac{3}{8}$	$\frac{1}{8}$	-----	-----	$8\frac{3}{8}$	1
New Hampshire..	$1\frac{1}{2}$	1	$10\frac{3}{4}$	$\frac{7}{8}$	10	0	-----	-----	$8\frac{5}{7}$	$1\frac{1}{7}$
Vermont.....	$1\frac{1}{6}$	$1\frac{2}{7}$	$11\frac{1}{3}$	$\frac{3}{8}$	10	$\frac{3}{4}$	-----	-----	$9\frac{3}{8}$	$1\frac{1}{8}$
Massachusetts ...	0	$\frac{7}{11}$	$10\frac{1}{5}$	$\frac{9}{10}$	$8\frac{2}{5}$	$1\frac{2}{5}$	$9\frac{3}{4}$	$\frac{3}{4}$	$9\frac{4}{11}$	$1\frac{1}{12}$
Rhode Island ....	0	0	$10\frac{1}{3}$	0	10	0	-----	-----	10	0
Connecticut.....	$\frac{3}{8}$	$\frac{1}{8}$	$10\frac{3}{8}$	$\frac{3}{8}$	9	$\frac{4}{5}$	$9\frac{5}{6}$	$\frac{1}{8}$	$9\frac{5}{6}$	1
New York.....	$\frac{5}{7}$	$\frac{5}{8}$	$10\frac{1}{7}$	0	$9\frac{1}{2}$	$\frac{1}{2}$	10	$\frac{2}{7}$	$9\frac{5}{8}$	1
New Jersey.....	2	$\frac{1}{2}$	$11\frac{1}{8}$	0	10	$\frac{1}{2}$	$10\frac{1}{10}$	$\frac{1}{2}$	$10\frac{1}{8}$	$\frac{1}{3}$
Pennsylvania ....	$1\frac{1}{5}$	$\frac{2}{4}$	$11\frac{1}{2}$	$\frac{4}{9}$	$9\frac{5}{8}$	$\frac{3}{8}$	$10\frac{1}{4}$	$\frac{1}{2}$	$10\frac{1}{4}$	$1\frac{1}{4}$
Maryland .....	2	$1\frac{1}{3}$	$11\frac{3}{4}$	0	10	0	$10\frac{7}{10}$	0	$10\frac{7}{12}$	0
Delaware .....	2	1	$10\frac{1}{8}$	1	10	1	10	$1\frac{1}{3}$	9	$1\frac{2}{3}$
Kentucky .....	3	$1\frac{2}{3}$	$12\frac{1}{2}$	0	$8\frac{2}{3}$	$2\frac{1}{2}$	$10\frac{2}{3}$	$\frac{1}{3}$	$10\frac{1}{5}$	1
Ohio .....	$2\frac{1}{2}$	$1\frac{1}{4}$	$11\frac{1}{4}$	0	$9\frac{3}{4}$	$\frac{3}{4}$	$10\frac{5}{6}$	$\frac{2}{7}$	$10\frac{1}{2}$	1
Michigan .....	2	$\frac{1}{2}$	$11\frac{1}{8}$	0	10	$\frac{1}{2}$	$10\frac{7}{10}$	$\frac{1}{8}$	$12\frac{1}{4}$	$\frac{1}{2}$
Indiana .....	3	$1\frac{7}{8}$	12	0	9	$1\frac{1}{9}$	$11\frac{1}{4}$	$\frac{2}{7}$	$11\frac{1}{2}$	$1\frac{1}{13}$
Illinois .....	3	2	11	0	$9\frac{1}{5}$	$\frac{1}{2}$	$10\frac{1}{2}$	$\frac{1}{5}$	$10\frac{1}{2}$	$1\frac{1}{4}$
Missouri.....	$3\frac{1}{8}$	3	11	$1\frac{1}{4}$	9	$1\frac{2}{3}$	$11\frac{3}{11}$	$\frac{1}{3}$	$11\frac{3}{4}$	$1\frac{1}{2}$
Wisconsin .....	2	2	11	1	10	1	$10\frac{1}{6}$	1	$12\frac{1}{2}$	1
Iowa .....	$1\frac{9}{10}$	$1\frac{1}{3}$	10	$1\frac{1}{2}$	$9\frac{3}{4}$	1	$10\frac{1}{4}$	1	$10\frac{3}{4}$	$1\frac{2}{7}$
Minnesota .....	$1\frac{1}{6}$	$\frac{2}{3}$	$9\frac{1}{2}$	$1\frac{1}{6}$	$9\frac{1}{4}$	$1\frac{2}{5}$	$9\frac{1}{3}$	$\frac{1}{3}$	$11\frac{1}{4}$	$\frac{3}{4}$
Kansas .....	$3\frac{3}{4}$	3	$13\frac{1}{4}$	0	$9\frac{1}{2}$	$1\frac{1}{3}$	11	$\frac{1}{2}$	12	$1\frac{1}{3}$
West Virginia....	$2\frac{1}{2}$	2	$13\frac{1}{2}$	0	$11\frac{1}{3}$	0	12	0	10	$\frac{4}{5}$
Nebraska Ter ....	2	2	$15\frac{3}{7}$	0	$11\frac{2}{5}$	$\frac{3}{5}$	$15\frac{1}{3}$	0	$14\frac{1}{7}$	$1\frac{1}{7}$

Table showing the condition of the crops, &amp;c.—Continued.

STATES.	BUCKWHEAT.		HOPS.		ROOT CROPS.		GARDENS.		GRAPES.	
	Amount of this crop sown compared with 1864.	Appearance at this time.	Amount of hops compared with 1864.	Appearance at this time, especially if injured by lice, mould, or other cause.	Amount sown compared with 1864.	Appearance of crop at this time.	Amount planted and sown compared with 1864.	Amount yielded by them compared with 1864.	Condition of the grapes on 1st September.	Injury from rot or other causes.
Maine.....	11 $\frac{5}{11}$	10 $\frac{5}{11}$	8	2 $\frac{3}{4}$	10	10 $\frac{1}{8}$	10 $\frac{1}{8}$	13 $\frac{1}{2}$	10	1
New Hampshire..	10	10	9 $\frac{3}{8}$	1 $\frac{5}{8}$	10	10	10 $\frac{1}{4}$	11 $\frac{1}{7}$	10	$\frac{3}{4}$
Vermont.....	10 $\frac{1}{9}$	10 $\frac{1}{2}$	8 $\frac{6}{7}$	1 $\frac{6}{7}$	10 $\frac{3}{8}$	10 $\frac{1}{4}$	10	10 $\frac{3}{8}$	8 $\frac{3}{5}$	1
Massachusetts....	10	10	9	1	10 $\frac{1}{2}$	9 $\frac{1}{2}$	11	11	8 $\frac{1}{8}$	1 $\frac{1}{8}$
Rhode Island....	10	10	0	0	10 $\frac{3}{8}$	10 $\frac{1}{8}$	10 $\frac{3}{8}$	11 $\frac{1}{8}$	10	0
Connecticut.....	11 $\frac{1}{3}$	10	9	1	10 $\frac{3}{5}$	9	10	10 $\frac{3}{5}$	8 $\frac{3}{5}$	2 $\frac{1}{5}$
New York.....	10 $\frac{3}{8}$	9 $\frac{1}{2}$	7 $\frac{3}{4}$	4 $\frac{1}{4}$	10	10	10 $\frac{1}{8}$	10 $\frac{1}{2}$	10 $\frac{2}{7}$	$\frac{3}{8}$
New Jersey.....	10	10 $\frac{1}{4}$	9 $\frac{1}{3}$	$\frac{5}{8}$	10	10	10	11	9 $\frac{3}{4}$	1 $\frac{7}{8}$
Pennsylvania....	10 $\frac{1}{6}$	10 $\frac{3}{8}$	10	1	11	10 $\frac{3}{8}$	10 $\frac{1}{8}$	11 $\frac{3}{8}$	8 $\frac{3}{4}$	2
Maryland.....	10	10	10 $\frac{2}{3}$	$\frac{1}{2}$	9 $\frac{2}{3}$	9 $\frac{2}{3}$	10	12 $\frac{3}{11}$	7 $\frac{1}{2}$	2 $\frac{1}{2}$
Delaware.....	8 $\frac{3}{8}$	7 $\frac{3}{8}$	9	3	10	9 $\frac{1}{8}$	10	10 $\frac{3}{8}$	7 $\frac{1}{8}$	3 $\frac{1}{8}$
Kentucky.....	9 $\frac{8}{9}$	10 $\frac{1}{8}$	11 $\frac{1}{4}$	0	10 $\frac{1}{6}$	9 $\frac{1}{8}$	10 $\frac{1}{8}$	10 $\frac{3}{8}$	8 $\frac{3}{8}$	1 $\frac{5}{6}$
Ohio.....	9 $\frac{3}{8}$	10 $\frac{1}{5}$	10	$\frac{2}{5}$	10 $\frac{1}{3}$	10 $\frac{3}{7}$	10 $\frac{1}{6}$	11 $\frac{1}{2}$	7 $\frac{1}{3}$	2 $\frac{3}{8}$
Michigan.....	11 $\frac{3}{11}$	11 $\frac{3}{8}$	10 $\frac{1}{4}$	1	11	11 $\frac{1}{5}$	10 $\frac{3}{8}$	13 $\frac{1}{2}$	10 $\frac{3}{8}$	0
Indiana.....	10 $\frac{3}{8}$	10 $\frac{5}{11}$	10	$\frac{1}{2}$	10 $\frac{5}{6}$	10 $\frac{1}{2}$	10 $\frac{1}{5}$	13 $\frac{1}{2}$	8 $\frac{1}{8}$	2
Illinois.....	9 $\frac{1}{2}$	10	10 $\frac{1}{4}$	$\frac{3}{4}$	10 $\frac{1}{2}$	10 $\frac{1}{2}$	10 $\frac{1}{2}$	11 $\frac{1}{4}$	10 $\frac{1}{5}$	1 $\frac{1}{4}$
Missouri.....	9 $\frac{1}{4}$	10 $\frac{3}{8}$	9	0	11 $\frac{1}{8}$	10 $\frac{1}{2}$	11 $\frac{1}{4}$	13	10 $\frac{3}{8}$	1 $\frac{1}{5}$
Wisconsin.....	10 $\frac{3}{8}$	10 $\frac{1}{7}$	11 $\frac{3}{8}$	1	10 $\frac{1}{2}$	11	10 $\frac{1}{2}$	12	11	$\frac{3}{8}$
Iowa.....	10 $\frac{1}{5}$	10	10 $\frac{3}{5}$	$\frac{3}{5}$	12	10 $\frac{1}{2}$	10 $\frac{1}{5}$	11 $\frac{3}{5}$	10	1
Minnesota.....	11	10	.....	.....	10 $\frac{1}{4}$	9 $\frac{3}{5}$	10 $\frac{1}{2}$	10 $\frac{3}{8}$	10	$\frac{1}{8}$
Kansas.....	8 $\frac{1}{2}$	10	10	$\frac{3}{4}$	13 $\frac{3}{4}$	11	12	18 $\frac{3}{8}$	10 $\frac{1}{2}$	$\frac{1}{2}$
West Virginia....	11	11 $\frac{1}{5}$	10	0	11	11	11 $\frac{1}{5}$	11 $\frac{1}{2}$	8 $\frac{1}{2}$	2
Nebraska Ter....	10	11	13	0	13 $\frac{1}{2}$	17 $\frac{1}{6}$	12 $\frac{1}{8}$	20 $\frac{1}{6}$	10	$\frac{1}{2}$



Table showing the condition of the crops, &amp;c.—Continued.

STATES.	HAY.		STOCK HOGS.		WEATHER IN AUGUST.				
	Injury from wet weather.	General quality of the hay crop.	Average number for fattening compared with 1864.	Average condition of same as to weight and size.	Weeks.				
					Favorable.	Wet.	Very wet.	Dry.	Very dry.
Maine .....	$\frac{1}{2}$	$10\frac{3}{4}$	$8\frac{1}{2}$	10	19	1	0	22	6
New Hampshire .....	$\frac{1}{4}$	$11\frac{1}{4}$	$9\frac{1}{8}$	10	5	1	0	17	9
Vermont .....	$\frac{1}{4}$	12	$9\frac{1}{2}$	$9\frac{3}{8}$	11	1	0	17	7
Massachusetts .....	$\frac{1}{2}$	$10\frac{3}{4}$	9	$9\frac{1}{4}$	8	0	0	18	18
Rhode Island .....	0	$10\frac{1}{8}$	9	$10\frac{1}{8}$	5	0	0	6	1
Connecticut .....	0	$10\frac{1}{2}$	$9\frac{1}{6}$	$9\frac{5}{6}$	3	0	0	12	9
New York .....	$\frac{2}{3}$	$10\frac{3}{4}$	$9\frac{1}{2}$	$10\frac{1}{8}$	32	13	3	74	46
New Jersey .....	$\frac{1}{2}$	$10\frac{1}{8}$	$9\frac{3}{4}$	$10\frac{1}{2}$	34	5	1	15	9
Pennsylvania .....	$1\frac{1}{4}$	10	$9\frac{3}{8}$	$10\frac{1}{2}$	74	46	7	54	1
Maryland .....	1	$9\frac{1}{2}$	$9\frac{1}{2}$	$10\frac{1}{4}$	25	3	0	14	6
Delaware .....	$\frac{2}{3}$	10	$9\frac{1}{8}$	$10\frac{3}{8}$	3	3	0	5	1
Kentucky .....	$2\frac{1}{8}$	$9\frac{1}{4}$	$9\frac{3}{8}$	$10\frac{1}{2}$	58	13	6	33	10
Ohio .....	$2\frac{1}{2}$	$8\frac{1}{8}$	$8\frac{3}{8}$	$10\frac{3}{8}$	80	50	9	57	9
Michigan .....	$1\frac{1}{2}$	$9\frac{1}{2}$	9	$10\frac{1}{4}$	70	35	9	25	5
Indiana .....	3	$8\frac{1}{2}$	$8\frac{1}{8}$	$10\frac{3}{8}$	104	89	28	52	7
Illinois .....	$3\frac{1}{8}$	$7\frac{2}{8}$	$8\frac{1}{2}$	10	65	50	28	48	14
Missouri .....	4	$7\frac{2}{8}$	9	$10\frac{1}{6}$	25	47	25	38	5
Wisconsin .....	2	$10\frac{1}{2}$	$9\frac{1}{4}$	$10\frac{1}{8}$	79	45	4	34	2
Iowa .....	$1\frac{3}{8}$	$9\frac{1}{6}$	8	$9\frac{3}{8}$	77	45	5	66	11
Minnesota .....	$2\frac{1}{8}$	$9\frac{3}{8}$	$9\frac{1}{2}$	$10\frac{5}{8}$	33	32	8	15	0
Kansas .....	2	$12\frac{1}{2}$	$9\frac{1}{2}$	$10\frac{1}{8}$	19	26	27	11	1
West Virginia .....	2	$9\frac{1}{8}$	$9\frac{1}{8}$	$10\frac{1}{2}$	22	15	12	16	3
Nebraska Territory ..	$1\frac{1}{3}$	$12\frac{1}{2}$	9	$11\frac{2}{7}$	8	11	6	3	0
					859	531	178	652	180

## COMMENTS ON THE PRECEDING TABLES.

*Wheat, Oats, and Hay.*—When the circular, returned on the first day of August, was sent to this department by the correspondents, the wheat, oats, and hay had not been secured, but was still exposed to the weather. In order to have a record of the injury sustained by these crops from the weather in a season so extremely wet, the question was asked in the last circular as to the extent of this injury. It will be observed, then, that it is reported *directly in tenths*, and that the table shows the injury from the *weather only*. The eastern and middle States, with the exception of New Jersey, escaped with but little injury, but the western suffered much. In Maryland and Delaware the wheat was injured by the rain, but the oats and hay not to any material extent.

*Corn.*—The returns show this crop to be in a most excellent condition. It is much beyond an average in *appearance*, and the *injury* is trifling. In the west, as we apprehended, the crop is weedy, but the rains continuing through August saved the crop from any great injury on that account. That the corn would have been heavier, if clean, no farmer will doubt; and had the months of August and September been very dry, as was to be feared from the excess of rain in July, that it would have been seriously injured by the weeds, every one will concede who remembers the light and chaffy condition of the corn crop of 1862, caused by the weeds which sprung up during the wet weather in harvest time, after the crop had been laid by. The hot, moist weather that prevailed during the first half of September has been most favorable to the maturity of the corn, and it is not probable that it can now sustain any injury, even in the localities where the overflow of waters and the excessive wet held back the planting until very late. We may, therefore, safely congratulate the farmer in having the best corn crop the country has produced, and in having the means of increasing his farm stock—an increase much needed now.

*Tobacco.*—During the summer this crop was not in a good condition. The amount planted was not equal to the crop of 1864, as our last report shows, especially in the heaviest tobacco-producing States. But by the present table it will be seen that its *appearance* is more favorable, and that the *injury* it has sustained is not great, except in the State Kentucky.

*Sorghum.*—The condition of this crop is good, and the injury sustained by it is light.

*Potatoes.*—Although the returns are so far very favorable, yet the rot was prevailing in too many places when our correspondents made their returns, on the first day of September, not to cause fears that this crop may have suffered very much from the general prevalence since then of warm, wet weather. The tops, in the west, were generally overgrown, but the wet weather prevented them from dying so quickly as they would have done had the weather been dry. The injuries, otherwise, are not great, and these have been occasioned by the potato-bug and overgrown tops.

*Buckwheat.*—This crop promises to be a good one.

*Hops.*—The condition of this crop is favorable generally, but in New York it has been most seriously injured by the lice. As this State in 1860 produced 9,671,931 pounds of the 10,991,996 pounds raised in the entire country, it will readily be seen that the injury of  $4\frac{1}{2}$  tenths, reported in the table, results in a great loss to the crop. Hence the advance in the prices of hops, which are selling as high as 60 cents per pound.

*Root crops and gardens.*—They were never better.

*Grapes.*—In the States where grapes are mostly grown the injury from rot has been very extensive. As the grape belongs to the dry trade-wind regions, as California, it is illy fitted to endure such weather as we have had since the beginning of July. The Catawba has rotted very much, but the Concord has not.

*Old wheat.*—The returns to the question of the amount of this on hand have not been as definite as we desired, the question not having been so clearly stated as to secure replies of a like character. The question has been renewed in the circular to be returned on the first day of October. But enough is seen to induce a belief that the amount is not as great as was supposed, showing that the high price and scarcity of corn and potatoes had led to a greater consumption of wheat than usual.

*The weather.*—In August, 1864, the returns of the general character of the weather showed 206 weeks to be wet, or very wet, out of 1,421 weeks; the returns for August, 1865, are 709 weeks wet, or very wet, out of 2,400 weeks returned. That is, the number of wet or very wet weeks in 1865 is about double the number in 1864 in proportion to the whole number of weeks returned.

*Fattening hogs.*—The column of the table showing the number and condition of these exhibits in every State a decrease in the *number* from last year. Their condition is good; better than that of last year. Letters accompanying the return of the circulars from many of our correspondents indicate that the hogs are smaller than usual.

The cause of this decrease is obvious enough. Scarcity and the high price of corn induced the farmers to sell it, rather than feed it to hogs. This will be seen from the following comments of the *Chicago Journal of Commerce* during the packing season last winter. In its issue of December 7, 1864, it says:

“There is no doubt we are receiving a large number of half-fed hogs, and the reasonable inference is that the farmers have more confidence in getting a higher price for their corn as grain than by feeding it to their stock, and that they are consequently running their hogs to market.”

In the *Journal* of December 14 it continues:

“Farmers are reported as being willing to take the high prices now offered for their hogs rather than feed corn to them, which they consider will command a higher price next summer.”

With views like these—and they were common to all farmers—it was not likely that they would raise stock hogs when they refused to continue feeding “half-fed” hogs, selling at high prices. It was very evident that there would be a decrease, and the returns of our correspondents confirm this view.

There never was a full return made of the number of hogs packed last season. The *Cincinnati Price Current*, of March 15, 1865, contains a full but not a complete account of last year's packing. The numbers packed in the seasons of 1863-'64 and 1864-'65 are thus stated:

1863-'64 .....	3, 328, 884
1864-'65 .....	2, 422, 779

Decrease .....	906, 105
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Our correspondents return a general average decrease of about *one-tenth*. Estimating it to be this amount, then, on the 2,422,779 hogs packed last year, there will be a deficit in the coming packing season of 242,277. Whilst the abundant corn crop will cause the hogs to be well fatted, better than last year, yet their decreased size will cause the weight per head to be no greater.

Yet, in view of this condition of the hog supply, the *Cincinnati Price Current* of August 9, 1865, has these remarks upon the coming packing season :

"The abundance of food for hogs will be greater the coming fall and winter than ever known before, *and consequently a large pork crop*; but notwithstanding this, there seems to be people who imagine that hogs at \$10 net, next November, are cheap.

"It seems to us that the prospects for pork-packers the coming season are far from flattering, and unless they agree not to take such risks as these prices would indicate, nothing but disaster awaits them."

We have in these extracts a specimen of those periodical alarms sounded against the farmers. It is assumed that because corn will be abundant, therefore there will be a large pork crop, as if the abundance of corn will make abundance of hogs when hogs are very scarce.

The day when alarms like the above controlled prices at the expense of farmers has passed away. The course of this department, in ascertaining the crops, and giving the facts a wide publication, has placed the prices of agricultural products under the legitimate influence of supply and demand, and taken them from the control of other agencies. It is, therefore, not a matter of surprise that the *Price Current* does not see any merit in these Monthly Reports.



# METEOROLOGY.

FROM THE SMITHSONIAN INSTITUTION.

AUGUST, 1865.

*Table showing the highest and lowest range of the thermometer, (with dates prefixed,) the mean temperature, and amount of rain, (in inches and tenths,) for August, 1865, at the following places, as given by the observers named. The daily observations were made at 7 o'clock a. m. and 2 and 9 p. m.*

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
MAINE.								
Steuben .....	Washington .....	J. D. Parker .....	2, 14	78	29	48	64.1	0.70
Lee .....	Penobscot .....	Edwin Pitman .....	4	89	30	46	65.2	3.25
West Waterville .....	Kennebec .....	B. F. Wilbur .....	4	91	24	50	67.4	1.00
Gardiner .....	do .....	R. H. Gardiner .....	4	86	29	50	66.1	1.46
Lisbon .....	Androscoggin .....	Asa P. Moore .....	4	90	.....	.....	.....	2.34
Standish .....	Cumberland .....	John P. Moulton .....	4	94	24	53	69.1	2.07
Cornish .....	York .....	Silas West .....	3	93	24	48	67.0	4.90
Cornishville .....	do .....	G. W. Guptill .....	3, 4	90	24	52	68.9	4.37
NEW HAMPSHIRE.								
Stratford .....	Coos .....	Branch Brown .....	3	89	18, 23, 24, 29	46	62.5	1.68
North Barnstead .....	Belknap .....	Chas. H. Pitman .....	4	94	23, 24	52	70.1	2.52
Claremont .....	Sullivan .....	S. O. Mead .....	4	90	30	44	64.5	.....
Do .....	do .....	Arthur Chase .....	3, 4	92	29	44	68.0	1.47
VERMONT.								
Lunenburg .....	Essex .....	Hiram A. Cutting .....	3	95	14	48	70.8	1.00
Craftsbury .....	Orleans .....	Jas. A. Paddock .....	3	84	24	44	61.9	3.25
Middlebury .....	Addison .....	H. A. Sheldon .....	3, 4	82	29	50	67.6	2.54
Brandon .....	Rutland .....	Harmon Backland .....	3	93	24	49	68.2	1.51
MASSACHUSETTS.								
Topsfield .....	Essex .....	A. M. Merriam .....	4	92	25	50	68.8	1.45
Georgetown .....	do .....	Henry M. Nelson .....	4	97	24	53	68.9	.....
Newbury .....	do .....	Jno. H. Caldwell .....	4	95	24	47	68.5	.....
New Bedford .....	Bristol .....	Samuel Rodman .....	3	84	24	53	70.0	1.16
Worcester .....	Worcester .....	Joseph Draper, M.D. .....	4	89	29	50	69.4	3.39
Mendon .....	do .....	Jno. G. Metcalf, M.D. .....	4	91	24, 25	51	70.0	2.30

Table showing the range of the thermometer, &amp;c., for August—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
MASSACHUSETTS—C'd.								
Baldwinsville.....	Worcester.....	Rev. E. Dewhurst...	4	88	24	46	61.9	3.45
Amherst.....	Hampshire.....	Prof. E. S. Snell.....	4	90	24, 29	48	68.6	1.86
Springfield.....	Hampden.....	J. Weatherhead.....	4	98	24, 29	44	70.0	1.67
Westfield.....	do.....	Rev. E. Davis.....	4	89	24, 25	52	68.7	1.30
Richmond.....	Berkshire.....	William Bacou.....	2, 3	90	24	46	72.1	0.70
Williams College.....	do.....	Prof. A. Hopkins.....	4	85	29	46	66.8	0.65
CONNECTICUT.								
Pomfret.....	Windham.....	Rev. D. Hunt.....	4	85	23	50	67.0	0.97
Columbia.....	Tolland.....	Wm. H. Yeomans.....	4	91	29	50	72.2	.....
Middletown.....	Middlesex.....	Prof. John Johnston.....	3	91	23	35	70.6	1.85
NEW YORK.								
Moriches.....	Suffolk.....	Miss N. Smith.....	9	93	24, 25	58	75.2	1.50
South Hartford.....	Washington.....	G. M. Ingalsbe.....	4	92	23, 24, 29	54	72.6	0.95
Albany.....	Albany.....	H. M. Patue, M.D.....	4	89	24	54	73.5	1.37
Fishkill Landing.....	Dutchess.....	Wm. H. Denning.....	2, 3	88	23	50	71.4	1.56
Garrison's.....	Putnam.....	Thomas B. Arden.....	3, 4	90	22	52	62.8	1.30
Deaf & Dumb Inst..	New York.....	Prof. O. W. Morris..	3	94	24	57	76.8	2.23
Flatbush.....	Kings.....	Eli T. Mack.....	3	85	24	54	75.3	2.90
Newburgh.....	Orange.....	Jas. H. Gardiner.....	4	92	23, 24	51	71.4	1.39
Gouverneur.....	St. Lawrence.....	C. H. Russell.....	3	91	28	40	66.0	0.99
South Trenton.....	Oneida.....	Storrs Barrows.....	4	89	29	42	64.9	1.22
Oneida.....	Madison.....	S. Spooner, M.D.....	31	90	29	49	66.8	1.58
Sherburne.....	Cheauango.....	Rev. J. R. Haswell.....	31	93	29	39	65.4	.....
Houseville.....	Lewis.....	Walter D. Yale.....	3	89	23	49	65.6	1.20
Theresa.....	Jefferson.....	S. O. Gregory.....	3	88	28	48	66.5	1.22
Depanville.....	do.....	Henry Haas.....	3	87	23, 24	50	67.5	.....
Oswego.....	Oswego.....	Wm. S. Malcolm.....	31	86	29	48	66.3	1.13
Palermo.....	do.....	E. B. Bartlett.....	6, 31	90	29	47	66.6	1.10
Baldwinsville.....	Onondaga.....	John Bowman.....	31	84	29	45	65.0	.....
Skaeateles.....	do.....	W. M. Beauchamp.....	31	88	23	48	67.3	.....
Auburn.....	Cayuga.....	John B. Dill.....	3, 4, 31	90	23, 24, 29	50	72.1	.....
Nichols.....	Tioga.....	Robert Howell.....	3	92	24	46	67.2	.....
Palmyra.....	Wayne.....	Stephen Hyde.....	3	92	29	48	66.5	.....
Geneva.....	Ontario.....	Rev. W. D. Wilson..	3	87	23, 24, 29	52	68.4	1.94
Rochester.....	Monroe.....	M. M. Mathews, M.D.	3	93	23, 28	50	68.0	1.04
Do.....	do.....	Prof. C. Dewey.....	3	91	23, 24, 29	50	67.9	1.04
Buffalo.....	Erie.....	Wm. Ives.....	30	88	28	49	68.6	0.29
Jamestown.....	Chautauqua.....	Rev. S. W. Roe.....	31	92	22, 24	48	66.8	2.30
NEW JERSEY.								
Paterson.....	Passaic.....	Wm. Brooks.....	4	92	24	50	71.3	2.20
Newark.....	Essex.....	W. A. Whitehead.....	3	88	24	50	69.8	3.94
New Brunswick.....	Middlesex.....	G. W. Thompson.....	5	97	24	48	71.5	.....
Burlington.....	Burlington.....	John C. Deacon.....	4	90	24	55	69.9	3.30
Moorestown.....	do.....	Thos. J. Beans.....	4	95	22, 23	54	71.8	3.41
Moutt Holly.....	do.....	M. J. Rhees, M.D.....	4	88	23	54	70.7	.....
Seaville.....	Cape May.....	Barker Cole.....	3	89	24	55	73.0	3.20
Haddonfield.....	Camden.....	J. S. Lippincott.....	5	88	24	54	72.6	5.96
Greenwich.....	Cumberland.....	R. C. Sheppard.....	4	85	24	54	71.3	3.19

Table showing the range of the thermometer, &amp;c., for August—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
<b>PENNSYLVANIA.</b>								
				°		°	°	<i>In.</i>
Blooming Grove.....	Pike .....	John Grathwohl ....	4, 5	88	24	41	65.7	4.80
Fallsington.....	Bucks .....	Ebenezer Hance.....	4	90	22	55	71.7	2.00
Philadelphia.....	Philadelphia.....	Pf. J. A. Kirkpatrick	3, 4	90	23	59	75.9	2.99
Germantown.....	do .....	Thos. Meehan.....	3	95	24	51	72.1	.....
Moorland .....	Montgomery.....	Anna Spencer.....	4	88	24	54	70.2	2.98
Dyberry .....	Wayne.....	Theodore Day.....	4	84	25	39	62.0	.....
Nazareth.....	Northampton.....	L. E. Ricksecker....	4	92	24	49	70.8	.....
North Whitehall....	Lehigh .....	Edward Kohler.....	3, 4	88	25	47	69.5	.....
Oxford.....	Chester.....	H. Duffield, M.D....	3, 4, 5	86	24	53	71.3	1.91
Silver Spring.....	Lancaster .....	H. G. Bruckhart....	4, 5	90	24	52	70.8	.....
Harrisburg .....	Dauphin .....	John Heisely, M.D..	5	89	25	57	75.0	3.53
Tioga .....	Tioga .....	E. T. Bentley .....	2, 3	92	23, 24	46	67.1	3.34
Pennsville.....	Clearfield .....	Elisha Fenton .....	2	90	25, 26	44	65.2	3.37
Connellsville .....	Fayette .....	John Taylor.....	2, 3, 31	88	24	48	69.1	.....
Canonsburg .....	Washington .....	Rev. Wm. Smith, D.D	4	87	25	42	68.1	4.20
<b>DELAWARE.</b>								
Wilmington .....	New Castle.....	U. D. Hedges, M.D..	21	88	24	51	73.1	3.60
<b>MARYLAND.</b>								
Woodlawn .....	Cecil .....	Jas. O. McCormick...	4	90	23	56	72.6	1.51
Annapolis .....	Anne Arundel...	Wm. R. Goodman...	21	88	23	56	75.3	3.86
St. Ingoes .....	St. Mary's.....	Rev. J. Stephenson...	4	96	23	59	76.6	3.55
Sykesville.....	Carroll .....	Miss H. M. Baer....	4, 6	85	23, 24	57	71.1	3.25
<b>WEST VIRGINIA.</b>								
Cabell C. H. ....	Cabell .....	C. L. Roffe.....	3	88	25	48	70.1	2.10
<b>MISSISSIPPI.</b>								
Natchez .....	Adams .....	Robert McCary.....	15	91	1	68	80.6	1.91
<b>TENNESSEE.</b>								
Clarksville .....	Montgomery.....	Wm. M. Stewart....	29, 30	89	25	58	74.3	4.92
<b>KENTUCKY.</b>								
Louisville .....	Jefferson .....	Mrs. L. Young.....	30	92	25	50	73.5	3.68
Chilesburg .....	Fayette .....	S. D. Martin, M.D. .	3, 29, 30	88	24	56	72.8	4.69
Danville .....	Boyle .....	O. Beatty .....	4	93	23	57	74.5	1.63
<b>OHIO.</b>								
Saybrook .....	Ashtabula .....	James B. Fraser....	31	85	25	50	67.3	.....
Austintown .....	do .....	E. D. Winchester...	9	87	25	46	67.0	0.75
New Lisbon.....	Columbiana .....	J. F. Benner .....	31	95	24, 25	48	73.3	2.79
Stenbenville.....	Jefferson .....	Roswell Marsh .....	.....	88	.....	46	71.0	3.60
Welshfield .....	Geauga .....	B. F. Abell, A. M....	4	90	23	50	68.7	2.89
Cleveland .....	Cuyahoga .....	G. A. Hyde .....	6	92	30	50	69.8	3.45
Wooster .....	Wayne.....	Martin Winger.....	30, 31	90	24	49	69.9	.....
Gallipolis .....	Gallia .....	A. P. Rogers.....	3	93	25	46	70.5	2.48
Kelley's Island.....	Erie .....	Geo. C. Huntington	31	90	24	59	71.9	1.75

Table showing the range of the thermometer, &amp;c., for August—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
<b>OHIO—Cont'd.</b>								
Norwalk .....	Huron .....	Rev. A. Newton.....	30	90	24	50	71.0	2.55
Kingston .....	Ross .....	Prof. Jno. Haywood..	31	93	22, 24	54	72.4	2.41
Portsmouth .....	Scioto .....	L. Engelbrecht .....	10	84	25	55	72.5	1.47
Toledo .....	Lucas .....	J. B. Trembly, M.D..	3	90	25	53	68.8	3.75
Marion .....	Marion .....	H. A. True, M.D.....	3, 31	86	23	51	68.4	2.11
Urbana University..	Champaign.....	Prof. M. G. Williams	3	88	23, 24	50	69.7	6.66
Hillsborough .....	Highland.....	J. McD. Mathews .....	31	85	23, 24, 25	52	69.7	2.52
Ripley .....	Brown .....	G. Bambach, M.D.....	31	93	23	56	74.6	4.52
Bethel .....	Clermont.....	Geo. W. Crane.....	30	92	23, 24	50	71.0	3.38
College Hill.....	Hamilton.....	John. W. Hammitt..	3, 4	92	24, 25, 26	53	74.0	3.50
<b>MICHIGAN.</b>								
Monroe .....	Monroe .....	H. & F. Whelpley ..	3	89	23, 25	50	68.4	4.60
Manchester .....	Washtenaw .....	F. M. Reasner, M.D..	2, 3, 31	92	24	40	67.8	.....
State Ag. College..	Ingham .....	Prof. R. C. Kedzie .....	2	86	22, 24	48	65.9	3.38
Honnestead .....	Benzie .....	G. E. Steele.....	2	86	23	42	65.0	.....
<b>INDIANA.</b>								
Vevay .....	Switzerland .....	Chas. G. Boerner.....	30	95	23, 24, 25	58	74.8	1.98
Pennville .....	Jay .....	Miriam Griest.....	2, 3, 4	88	23	47	70.2	.....
Richmond .....	Wayne .....	John Valentine .....	2	86	23, 24, 25	54	69.1	7.92
Spicecland .....	Henry .....	Wm. Dawson .....	3, 30	91	22, 23	54	71.0	1.70
New Albany .....	Floyd .....	E. S. Crozier, M.D. ..	30	91	24	57	75.6	3.31
Indianapolis .....	Marion .....	W. W. Butterfield ..	3	92	24	55	71.4	.....
Rensselaer .....	Jasper .....	Dr. J. H. Loughridge	3, 29	91	23	49	70.7	9.41
Farmers' Institute..	Tippecanoe.....	Isaac E. Windle .....	29	85	22	53	65.3	6.44
New Harmony .....	Posey .....	Jno. Chappellsmith ..	30	90	25	60	75.4	3.56
<b>ILLINOIS.</b>								
Chicago .....	Cook .....	Samuel Brookes .....	2, 29, 30	88	17, 24	50	66.5	.....
Evanston .....	do .....	John Lammy .....	18	88	24, 25	58	72.9	5.84
Riley .....	McHenry .....	E. Babeock .....	29	86	24	55	70.3	9.15
Sandwich .....	DeKalb .....	N. E. Ballou, M.D.....	27, 28, 30, 31	90	22, 24	50	69.5	7.38
Ottawa .....	La Salle .....	Mrs. E. H. Merwin ..	29	92	22	49	70.9	5.50
Winnebago .....	Winnebago .....	Jas. W. Tolman .....	31	89	16	51	69.8	7.22
Wyanet .....	Bureau .....	E. S. & Miss Phelps..	31	91	23	50	70.9	8.79
Tiskilwa .....	do .....	Verry Aldrich .....	9, 19	90	23	52	70.9	7.75
Elmira .....	Stark .....	O. A. Blanchard .....	29, 31	88	23, 24	54	71.4	5.25
Hennepin .....	Putnam .....	Smiley Sheppard .....	31	87	23	48	69.1	.....
Peoria .....	Peoria .....	Frederick Brendel ..	30	89	23	57	73.2	3.61
Pekin .....	Tazewell .....	J. H. Riblett .....	30	91	23	53	73.4	1.49
Springfield .....	Sangamon.....	G. M. Brinkerhoff ..	10, 30	94	24	52	74.7	.....
Waterloo .....	Monroe .....	H. Künster .....	5	98	23	67	80.2	.....
Dubois .....	Washington .....	Wm. C. Spencer .....	29	92	23	46	67.0	3.75
Waverly .....	Morgan .....	Timothy Dudley.....	1	89	23	53	72.6	0.50
Murraysville .....	do .....	Dr. J. & Miss Grant ..	9	92	22, 24	58	74.1	0.55
Galesburg .....	Knox .....	Pf. Wm. Livingston ..	9, 29, 30	88	13	49	71.4	4.70
Augusta .....	Hancock.....	S. B. Mead, M.D.....	9	89	23	54	72.0	1.69
<b>WISCONSIN.</b>								
Manitowoc .....	Manitowoc .....	Jacob Läps.....	18	84	11, 22	50	65.3	2.93
Milwaukee .....	Milwaukee .....	I. A. Lapham, LL.D.	31	89	24	45	67.1	4.34



Table showing the range of the thermometer, &amp;c., for August—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
WISCONSIN—Cont'd.								
				°		°	°	<i>In.</i>
Milwaukee .....	Milwaukee .....	Carl Winkler .....	31	90	24	53	.....	5.03
Green Bay .....	Brown .....	Friedrich Deckner ..	2	89	17	47	65.0	2.19
Geneva .....	Walworth .....	Wm. H. Whiting .....	29	88	16, 22	52	67.0	.....
Delavan .....	do .....	Leveus Eddy .....	2, 31	85	23	48	67.7	4.97
Waupacca .....	Waupacca .....	H. C. Mead .....	26	88	22	52	70.5	.....
Weyauwega .....	do .....	Jno. C. & Ed. Hicks ..	26	89	12	53	68.9	7.10
Rocky Run .....	Columbia .....	W. W. Curtis .....	28, 29, 30, 31	88	22	49	68.4	.....
Baraboo .....	Sauk .....	M. C. Waite .....	29	90	22	48	69.7	.....
Plymouth .....	Sheboygan .....	G. Moeller .....	31	93	22, 23	48	66.4	6.00
Odanah .....	Ashland .....	Edwin Ellis, M. D. ..	30	88	22	58	64.9	5.06
MINNESOTA.								
Beaver Bay .....	Lake .....	C. Wieland .....	30	85	21, 22	48	63.1	4.47
Afton .....	Washington .....	Dr. & Mrs. Babcock ..	29, 30	90	22	50	68.1	.....
St. Paul .....	Ramsey .....	Rev. A. B. Paterson ..	30	85	22	52	66.7	9.16
Minneapolis .....	Hennepin .....	Wm. Cheney .....	30	91	22	53	69.2	.....
Forest City .....	Meeker .....	H. L. Smith .....	7, 8	86	22	54	68.0	6.66
Sibley .....	Sibley .....	C. W. Woodbury ..	30	89	23	51	71.3	6.06
New Ulm .....	Brown .....	Charles Roos .....	29	92	22	56	73.4	4.50
IOWA.								
Lyons .....	Clinton .....	J. P. Farnsworth, M. D.	31	91	23	47	72.9	10.55
Dubuque .....	Dubuque .....	Asa Horr, M. D. ....	28, 31	90	23	52	71.9	3.99
Muscatine .....	Muscatine .....	I. P. Walton .....	28	88	23	46	70.2	4.25
Fort Madison .....	Lee .....	Daniel McCreedy .....	9	95	23	49	73.1	2.03
Monticello .....	Jones .....	Chauncey Mead .....	28, 31	88	23	51	68.9	2.78
Guttenberg .....	Clayton .....	Philip Dorweiler .....	28, 31	88	22	52	69.0	.....
Ceres .....	do .....	John M. Hagensick ..	31	90	22	54	70.3	.....
Mount Vernon .....	Linn .....	Prof. Alonzo Collins ..	27, 28	89	23	50	70.6	.....
Independence .....	Buchanan .....	A. C. Wheaton .....	28, 31	92	23	52	71.7	4.30
Do .....	do .....	D. S. Deering .....	27, 28, 31	88	23	52	69.7	.....
Waterloo .....	Black Hawk .....	T. Steed .....	27, 28	90	24	52	70.3	.....
Iowa Falls .....	Hardin .....	N. Townsend .....	9	89	24	50	71.7	2.81
Davenport .....	Scott .....	George B. Pratt .....	28, 30	86	22, 23	56	71.2	4.52
MISSOURI.								
St. Louis .....	St. Louis .....	Dr. Geo. Engelmann ..	30	93	23	57	75.9	1.96
St. Louis University ..	do .....	Rev. F. H. Stuntebeck ..	30	92	23, 24	61	76.9	1.84
Athens .....	Clark .....	J. T. Caldwell .....	31	93	9	57	71.1	1.45
Canton .....	Lewis .....	George P. Ray .....	31	94	23, 24	57	78.4	2.06
Harrisonville .....	Cass .....	John Christian .....	14	95	23	60	75.8	6.45
Easton .....	Buchanan .....	P. B. Sibley .....	28	92	23	61	75.8	8.07
KANSAS.								
Olatha .....	Johnson .....	W. Beckwith .....	28	96	23	58	70.5	13.10
Atchison .....	Atchison .....	Dr. H. B. & Miss Horn ..	10, 16, 17	100	22	59	76.2	.....
State Ag. College .....	Riley .....	H. L. Denison .....	30, 31	90	24	59	75.4	5.04
Fort Riley .....	Davis .....	C. E. Sullivan .....	20, 21, 28, 29	94	22	65	75.5	.....
NEBRASKA TER.								
Elkhorn .....	Washington .....	John S. Bowen .....	27, 28, 30, 31	90	3, 22	60	72.8	.....

*Table showing the average temperature and fall of rain (in inches and tenths) for the month of August, in each year named, and for the five years first named, collectively, with the average number of places in each State in which the observations were made.*

States and Territories.	Av. number of places.	Averages, 1855.		Averages, 1856.		Averages, 1857.		Averages, 1858.		Averages, 1859.		Av. for five years.		Averages, 1863.		Averages, 1864.		Averages, 1865.	
		Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.
		Deg.	In.	Deg.	In.	Deg.	In.	Deg.	In.	Deg.	In.	Deg.	In.	Deg.	In.	Deg.	In.	Deg.	In.
Maine .....	6	62.4	3.9	61.2	5.6	63.6	4.6	66.9	2.5	66.8	3.3	64.2	4.9	66.8	3.3	66.8	5.12	66.8	2.51
New Hampshire .....	4	64.9	2.5	66.6	5.9	65.1	4.1	58.7	3.4	58.7	2.5	64.2	4.0	66.4	4.8	66.4	5.85	66.3	1.89
Vermont .....	4	62.4	2.9	64.9	5.9	65.5	3.6	66.5	2.4	66.5	2.4	64.8	4.7	67.6	4.6	67.2	4.85	66.3	2.08
Massachusetts .....	12	66.1	3.2	67.4	5.1	66.8	5.1	66.8	4.6	66.8	4.6	66.4	5.8	69.8	4.6	69.6	4.72	67.1	
Rhode Island .....	1	67.9	2.0	69.8	4.8	66.4	8.2	69.2	3.7	69.2	3.7	68.0	4.9	70.3	4.6	70.3			
Connecticut .....	4	67.4	2.0	67.6	5.0	66.5	4.4	67.3	7.0	67.3	7.0	67.5	3.8	70.3	3.6	70.3		68.6	1.79
New York .....	18	67.9	2.4	68.6	4.7	68.6	4.7	68.6	3.8	68.8	3.8	67.5	5.4	70.3	3.6	70.3		68.6	1.41
New Jersey .....	4	70.7	2.9	70.3	4.8	72.3	3.7	70.0	4.6	68.8	3.8	66.7	4.5	76.6	3.4	72.4	2.61	71.3	3.60
Pennsylvania .....	26	71.4	3.8	69.6	6.4	71.5	3.4	71.2	4.1	71.2	4.1	70.6	4.0	73.6	2.6	74.0	2.61	69.6	3.34
Delaware .....	1					77.3	4.3		5.5			76.0	5.4			79.6	4.80	73.1	3.24
Maryland .....	5	72.6	5.7	72.5	5.9	74.2	2.6	73.2	2.6	73.2	2.6	72.4	4.4	78.5	0.51	78.3	3.30	73.9	3.60
District of Columbia .....	1	74.9	2.9	72.6	10.2	73.5	4.8	74.7	3.2	74.9	3.2	72.4	4.4	78.2	0.86	78.2	3.61	73.9	3.04
South Carolina .....	5	80.7	4.4	79.3	4.9	80.3	4.8	79.3	3.9	79.3	3.9	79.0	6.3	78.2	4.94	78.2	3.96		
Tennessee .....	22	76.4	4.6	73.2	5.1	76.3	2.5	73.3	4.6	73.3	4.6	74.8	4.2						
Kentucky .....	4	73.4	4.4	72.6	3.2	73.6	2.3	72.6	6.4	73.9	6.4	73.9	4.0						
Ohio .....	18	72.2	4.1	68.3	3.6	71.5	4.4	71.3	3.9	71.3	3.9	70.6	3.6	72.8		75.9	5.63	74.3	4.92
Michigan .....	8	68.5	2.3	65.0	4.5	69.2	4.0	69.0	2.6	69.0	2.6	67.7	3.0	70.3		73.6	4.94	73.6	3.35
Indiana .....	14	74.0	4.4	71.3	4.3	73.7	4.0	73.6	4.3	73.6	4.3	73.1	4.0	73.6	3.6	71.1	3.33	70.6	2.98
Illinois .....	13	71.7	4.1	72.9	4.5	72.7	4.5	72.5	2.5	72.5	2.5	73.1	3.0	73.6	2.6	74.4	4.45	71.5	3.99
Wisconsin .....	9	67.7	1.8	67.4	3.6	68.9	3.6	68.9	1.8	68.9	1.8	68.1	3.4	72.9	3.1	73.3	4.88	71.5	4.90
Minnesota .....	3	63.4	10.5	63.4	3.9	68.6	3.9	68.6	4.1	68.6	4.1	68.1	2.5	70.3	3.1	70.6	2.01	67.4	4.70
Iowa .....	8	68.6	3.3	67.8	5.8	71.9	3.3	72.5	4.1	72.5	4.1	70.4	3.2	74.9	3.2	70.7	2.09	68.5	6.17
Missouri .....	2	74.4	6.5	74.0	3.5	73.4	2.9	73.7	1.8	73.7	1.8	75.3	4.0	77.7	3.3	72.1	3.60	70.9	4.40
Nebraska .....	2				10.1	73.6	1.9	73.9	2.8	73.9	2.8	73.7	4.4	74.6	3.1	74.1	3.11	73.7	3.64
Nebraska Territory .....	4				3.9	75.9	4.0	75.9	5.6	75.9	5.6	73.7	4.5	80.2	1.48	74.6	2.14	74.4	9.07
Kansas .....	4				0.0	61.7	0.1	61.7	0.0	61.7	0.0	68.0	0.0	77.8	4.7	80.2	2.14	72.8	
California .....	2				0.0	61.7	0.1	61.7	0.0	61.7	0.0	68.0	0.0	77.8	4.7	80.2	2.14	72.8	

## ADDENDA.

*Received since our last issue.*

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
ARIZONA TER.								
June, 1865.				°		°	°	In.
Fort Whipple.....	Yavapai.....	Elliott Cones, M. D.	21, 22	110	4, 5	52	75.7	.....
July, 1865.								
Fort Whipple.....	Yavapai.....	Elliott Cones, M. D.	1	105	14	42	70.9	.....
UTAH TERRITORY.								
May, 1865.								
St. George.....	Washington.....	George A. Burgon..	6, 26	101	1	58	80.9	0.00
June, 1865.								
St. George.....	Washington.....	George A. Burgon..	21	107	17	68	85.3	0.01
July, 1865.								
St. George.....	Washington.....	George A. Burgon..	1	108	16	65	82.3	1.03
CALIFORNIA.								
June, 1865.								
Meadow Valley.....	Plumas.....	Mrs. M. D. Smith...	30	105	1, 2	44	65.9	0.25
Sacramento.....	Sacramento.....	T. M. Logan, M. D..	24	94	2	57	71.1	0.00
Monterey.....	Monterey.....	C. A. Canfield, M. D.	18	89	2, 5	53	57.0	0.00
July, 1865.								
Sacramento.....	Sacramento.....	T. M. Logan, M. D..	21	94	6, 8	61	74.0	0.00
Monterey.....	Monterey.....	C. A. Canfield, M. D.	20	81	7, 17, 23	54	61.6	0.10
MAINE.								
July, 1865.								
Perry.....	Washington.....	Wm. D. Dana.....	28	81	13	56	64.4	6.18
MISSISSIPPI.								
July, 1865.								
Natchez.....	Adams.....	Robert McCary.....	22	92	14	70	82.7	2.33
KENTUCKY.								
July, 1865.								
Danville.....	Boyle.....	O. Beatty.....	4, 6, 7	96	17	60	76.2	6.75
London.....	Laurel.....	W. S. Doak.....	7	95	18	59	76.6	.....
KANSAS.								
July, 1865.								
Olatha.....	Johnson.....	W. Beckwith.....	7	96	16	57	.....	13.75
Fort Riley.....	Davis.....	C. E. Sullivan.....	6	96	16	60	77.0	2.80
NEBRASKA TER.								
July, 1865.								
Ionia.....	Dixon.....	L. T. Hill.....	31	96	16, 17, 21, 22	58	.....	6.50

## NOTES OF THE WEATHER—AUGUST, 1865.

*Gardiner, Maine.*—The average temperature of the month of August for twenty-nine years is  $67.18^{\circ}$ , therefore the past month ( $67.17^{\circ}$ ) has been one degree cooler than the average. The amount of rain in inches was 1.464; the average for this month for twenty-seven years is 4.010. Last year it was 6.120. This year, therefore, the month has been unusually dry.

*Steuben, Maine.*—August 12.—Quite a drought. 25th, plenty of frost in many places; very dry. 31st, terribly dry; only seventh-tenths of an inch of rain during the month.

*West Waterville, Maine.*—August 31.—The ground has become quite dry; rain is much needed.

*Standish, Maine.*—August 23.—Streams almost dry. 29th, small streams dry, large streams very low.

*Claremont, N. H.*—August 24.—Thermometer  $38^{\circ}$  at 5 a. m. 31st, a severe drought prevails throughout this region.

*Middlebury, Vermont.*—August 31.—The earth is very dry, wells and springs low, some entirely dry.

*Lunenburg, Vermont.*—August 31.—This month has been very dry. Springs are low and everything is pretty well dried, but as it is so late in the season it is no injury to crops. Grain has been harvested in fine condition.

*Georgetown, Massachusetts.*—August 31.—The drought is very severe, affecting cultivated crops much more than last year. Foliage on forest trees in certain localities begins to show decay.

*Richmond, Massachusetts.*—August 24.—Frost in and around swamps.

*Baldwinsville, Mass.*—August 31.—Potatoes will suffer some from drought.

*New Bedford, Mass.*—August 31.—The drought begins to be rather severe.

*Topsfield, Mass.*—August 16.—Drought extreme. 31st, severe drought prevailing; all crops suffering.

*Pomfret, Conn.*—August has been a dry month, less than an inch of rain falling, and less than in any August since 1854, when there was 0.531 of an inch.

*Columbia, Conn.*—August 23.—There was a frost on low, moist land.

*Vermillion, N. Y.*—August 31.—Not enough rain has fallen since the 11th to lay the dust, and vegetation is suffering for want of rain.

*Depauville, N. Y.*—August 31.—Owing to the very dry weather, August has been favorable for harvesting, but unpropitious for the growth of vegetation. Meadows and pasture ground look as if burnt over. Multitudes of grasshoppers have in many localities stripped potato fields and gardens of almost everything green.

*Moriches, N. Y.*—August 28-30.—Observed in going to New York that the west end of the island (Long Island) has had much more rain than has fallen here. This district seems to be especially dry, while rain falls all around us.

*Garrison's, N. Y.*—The month has been very warm and dry, and attended with few changes of temperature. The dry weather is maturing both corn and potatoes rapidly, and will very much affect fall pasture in this locality.

*Nichols, N. Y.*—August 13.—Light frost in the morning; it amounted to nothing here, but in Pennsylvania, ten miles south, it did a little damage. 14th, a very little frost seen. 31st, the month ends very dry. Buckwheat injuring very fast, especially fields on the east hills where the afternoon sun strikes. The blades on many fields of corn are drying up.

*Palmyra, N. Y.*—August 24.—Slight frost last night on low land; also on the night of the 28th. 31st, the month was 5.08 degrees colder than August of last year.

*South Trenton, N. Y.*—August 24.—Slight white frost this morning, no damage done; first this season. 26th, vegetation very much parched. Water in



many places dried up. Cows in very many places shrink in milk badly from want of water and grass. 29th, trifling white frost this morning. 31st, drought very severe. Grass has not grown a particle in the last ten days. There have been nineteen days of thunder this year, and two this month.

*South Hartford, N. Y.*—August 31.—Previous to August 11 the season was marked for its unusual wetness, in consequence of which the hay crop was good, and the summer a propitious one for the agriculturist. Since that date no rain has fallen, and there has been a severe drought. Springs, streams, and wells are rapidly drying up, and the forest is assuming an autumnal hue.

*Rochester, N. Y.*—July and August of the present year have each been drier than in any one of the last seven years. The lowest measurement in that period previous to the present year was in 1859.

*Skaneateles, N. Y.*—August 31.—Clinton grapes turned suddenly black in a few hours. Remarkable drought this month; pastures burnt up, but other things look well.

*Oswego, N. Y.*—August 31.—Earth very much parched for want of rain and the crops suffering.

*Fishkill, N. Y.*—August 14.—Ground very dry, rain much wanted. 31st, very dry, buckwheat crop injured on high land; fall pastures very short.

*Sherburne, N. Y.*—August 23.—Frost on flats this morning. 29th, first general frost this morning. 31st, much complaint of drought towards the last part of the month.

*Haddonfield, N. J.*—August has been a cool month comparatively; on no day did the thermometer rise above  $90^{\circ}$ . The first half was the warmer, as usual; on twelve days of which the mercury rose to  $80^{\circ}$  and above. The latter half was uncommonly cool; on only seven days did the maximum exceed  $80^{\circ}$ , and on no day did it rise above  $87^{\circ}$ , while on several days the minimum fell below  $52^{\circ}$ . The month has been unusually pleasant for this latitude and region. No drought has troubled the farmer, as is too usual hereabouts. The amount of rain was more than twice as much as in August, 1864. In August of that year the minimum of  $52^{\circ}$  was not reached until the last day, while this year it occurred on the 15th and on five days thereafter. The mean relative humidity for the month has been much greater than in 1864, being within 15 per cent. of saturation, while in August, 1864, it fell 24 per cent. below it.

*Newark, N. J.*—The mean temperature of August was nearly a degree and a quarter below the average of the month for twenty-two years. It rained in measurable quantities on the 3d, 5th, 6th, and 22d. At the close of the month the ground was very dry, and the russet hues of the trees indicated the effects of drought and diminished vitality.

*New Brunswick, N. J.*—August 24.—Very cold for the season, thermometer  $46^{\circ}$  before sunrise.

*Siegfried's Bridge, Pa.*—August 31.—The weather during the month was very favorable for farming. Farmers are about one week ahead of their work. They have cut and housed their second crop of hay, and many have commenced sowing wheat and rye during the last week of the month.

*Blooming Grove, Pa.*—There was light frost on the mornings of the 14th and 24th of August; no damage.

*Grampian Hills, Pa.*—The month of August has mostly been favorable for out-door work. From the 1st to the 10th mostly showery; 10th to the 20th quite dry; 21st and 22d heavy rain. No storms of wind, no great floods, and but little thunder and lightning. 23d to 26th very cool, with light frosts on the 24th and 25th, without injury.

*Chilesburg, Kentucky.*—August 31.—Grasshoppers (locusts) are very abundant. They destroyed entirely three sowings of turnips, have eaten every leaf off a parcel of young apple trees set out in the spring, and are doing mischief generally.

*Urbana, Ohio.*—August 24.—Temperature at sunrise  $44^{\circ}$ . August 31st, the mean temperature of August was lower than that of June and July, and was two degrees below the average of August for the last fourteen years. The lowest mean for August during that period was  $66.66^{\circ}$ , in 1856.

*Manchester, Michigan.*—August 24.—Light frost last night, no damage. 31st, more rain fell in August than in the preceding two months of the year.

*Lansing, Michigan.*—Slight frost on the mornings of August 11th, 17th, and 23d.

*Rensselaer, Indiana.*—August 22.—A very violent storm occurred last night, continuing from half past eleven to three o'clock this morning. Its direction was from the north and northeast, the wind blowing almost a hurricane, and the rain descending in torrents. Some thunder and lightning accompanied it. The amount of rain which fell measured four and three quarter inches.

*Richmond, Indiana.*—August 23.—A light frost in some situations, but nothing injured. 30th, ground becoming very hard; being run together by the great rains; it is very hard ploughing.

*Peoria, Illinois.*—August 15.—Illinois river ten and a half feet above low water, unusually high for the season.

*Ottawa, Illinois.*—August 9.—Heavy rain from half past 2 to 10 p.m. 10th, the Illinois and Fox rivers have overflowed their banks, ravines are under water, railroad communications cut off, and large portions of the track submerged and washed away.

*Sandwich, Illinois.*—August 5.—At one o'clock a. m. commenced one of the most severe rain-storms of the season, continuing until 4 a. m., the rain having fallen to the unprecedented depth of four inches.

*Athens, Missouri.*—The first half of August was unusually wet and damp, more so probably than since 1857; also cool for the season. The remainder of the month has been warm and pleasant for August, with the prospect of dry weather.

*Weyauwega, Wisconsin.*—August 12.—Quite a heavy frost this morning; thermometer  $46^{\circ}$  at 5 a. m.

*Waupaca, Wisconsin.*—On the morning of the 22d and 23d of August slight frost was noticed in several places in the county, but none here; no damage done, as far as heard from.

*Afton, Minnesota.*—August 9.—This morning we were visited by a terrible storm of rain, wind, hail and lightning, beginning at 3 o'clock and continuing till half past 7. The wind was very heavy here, tearing down fences and stripping trees of their branches. Half a mile north of here it was a complete tornado. White oak trees perfectly sound, eighteen inches in diameter, were twisted off, and others equally large were torn up by their roots. It completely demolished barns, fences, and everything in its track. Fortunately its track was narrow, only about forty rods, making the destruction of property light.

*St. Paul, Minnesota.*—The fall of rain during August (9.16 inches) is almost without precedent; rain fell on nine days, and none after the 21st of the month. So much rain has had the effect of keeping a fine stage of water in the river.

*Fort Madison, Iowa.*—Drought in the latter part of August.

*Monticello, Iowa.*—August 21.—Rain from 4 to 9 p. m. one inch and three-quarters. 30th, the farmers have had fine weather for securing their crops since the 21st.

*Guttenberg, Iowa.*—August 21.—Heavy rain from 1 to 8 p. m. 23d, slight white frost; vegetation not damaged.

*Dubuque, Iowa.*—August 21.—A furious northeast storm to-day; rarely so severe a wind has been noted from that direction. It was most violent at 5 p. m., when it blew a gale.

*Lyons, Iowa.*—August 21.—From 7 to 8 p. m. four inches of rain fell, carrying away bridges and culverts in every direction; track of railroad, and nearly every bridge around Lyons, washed away.

## METEORS.

*Lafayette, Indiana.*—August 18.—At a quarter before 9 o'clock an uncommonly large meteor was observed in the northeast, in size about as large round as a half bushel, giving off a lurid blue light of great intensity, burning like a percussion match, with an appearance of intense friction.

*Veray, Indiana.*—Have observed a large number of meteors this month. On the night of the 12th from 8 to 10 p. m. counted twenty; none of them were of great brilliancy. Most of them seemed to take their flight from the constellation Cassiopeia directly south.

*Dubois, Illinois.*—August 6.—A very bright meteor exploded in the western sky at 8.15 p. m. 25th, a large meteor fell in the southeast at 7 p. m.

*Eravston, Illinois.*—The general phenomenon of shooting stars which occurred about the 10th of August was observed here; one hundred and eleven were seen on that night.

*Winnebago, Illinois.*—August 4.—A brilliant meteor passed through Cassiopeia, disappearing near  $\beta$  in Cepheus at 9.45. Another about two minutes later passed Cepheus to  $\gamma$  in Draco; another of bright crimson color appeared for an instant in Cepheus, describing about  $8^\circ$  within a few seconds of the latter. Another splendid one shot from Cassiopeia through Ursa Minor at 9.50. At 10 the sky became overcast by clouds, and observations were suspended. August 6, meteor observed at 9.30 p. m. in Cassiopeia starting from a point nearly opposite  $\delta$ , running parallel with it and  $\gamma$ , ending at  $\alpha$  in same constellation. August 10th, two meteors observed in Ursa Major near  $\sigma$  at 8.30 p. m. Another in Cassiopeia at 8.40. A brilliant one in the south at 9 p. m., starting at a point about  $35^\circ$  above the horizon, shooting towards it, leaving behind a track of flame nearly or quite  $30^\circ$  in length and nearly perpendicular to the plane of the horizon. Another at 9.15 starting about  $3^\circ$  from  $\alpha$  and disappearing near  $\epsilon$  in Bootes. Another at 9.23 describing a path of about  $10^\circ$  nearly across the north star. Another in Sappho at 9.24 describing a path of  $25^\circ$  to  $30^\circ$ . Another at 9.28 in Andromeda.

August 15. A bright meteor observed in Andromeda at 9 p. m.; another in Ursa Major at 9.05 p. m. August 16th, meteor observed at 9 p. m. about  $6^\circ$  below Capella, describing a path of  $10^\circ$ . August 26, meteor in Ursa Major at 9 p. m., describing a path of  $20^\circ$ .

*St. Louis, Missouri.*—August 10.—A shower of large shooting stars, some with long trails, between 8 and 9 p. m.; most of them moved from north to south in or near the zenith, but others in all directions. August 11, about 9 p. m. a few were seen, and only one with a trail.

*Delavan, Wisconsin.*—August 4.—At 9.25 p. m. a large meteor was observed moving from east to west a little south of Ursa Major.

*Hamilton, Bermuda.*—August 10.—The night was too cloudy for observation till after half past ten; from that time till half past twelve nine meteors were observed, and several more within an hour afterwards.

## EARTHQUAKE.

*Waterloo, Illinois.*—August 17.—At 8.45 a. m. there were felt three shocks of earthquake, the first and second being tremulous, the third undulating; direction southwest to northeast. Amount of cloudiness at the time 8, heavy black cumuli; atmosphere somewhat sultry; thermometer  $75^\circ$ .

*St. Louis, Missouri.*—August 17.—Earthquake at  $8\frac{3}{4}$  a. m.; said to have been most severe in the old earthquake region south of the mouth of the Ohio, and to have extended as far as northern Mississippi.

